V
1
N325
SLRA

NAVAL PROFESSIONAL PAPERS

No. 18

TRAINING OF ENLISTED MEN

BUREAU OF NAVIGATION

NAVY DEPARTMENT

TRAINING

OF

ENLISTED MEN.

THREE PAPERS REPRINTED FROM THE "JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION."

BUREAU OF NAVIGATION,
NAVY DEPARTMENT.

SMITHSONIAN
LIBRARIES

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

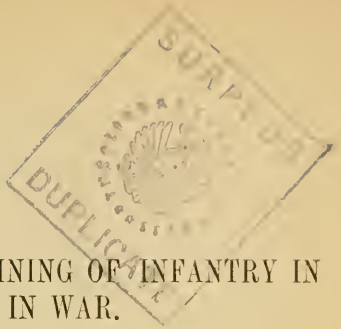
2580—No. 18

NOTE.

The within papers are republished from the "Journal of the Royal United Service Institution," to call attention to the necessity for the more elaborate training of enlisted men in the Navy, and to the several systems advocated and carried out in foreign armies.

The general principles of such training are as applicable to navies as to armies.

BUREAU OF NAVIGATION, NAVY DEPARTMENT, *August*, 1885.



SOME GERMAN VIEWS UPON THE TRAINING OF INFANTRY IN PEACE AND ITS ACTION IN WAR.

"Militärische Briefe II. Ueber Infanterie." Von Kraft Prinz zu Hohenlohe-Ingelfingen, General der Infanterie à la suite der Armee, General-Adjutant seiner Majestät des Kaisers und Königs. (Berlin, 1884.)

"Beiheft zum Militär-Wochenblatt, 1884." Heft 6. Herausgegeben von V. Löbell, Oberst. z. D. Die Heranbildung v. Unterführern auf dem Exercirplatz. (The training of leaders of the lower grades on the field of exercise.)

Twice during her short history as a kingdom has Prussia established her superiority in war—the first time under Frederick the Great, the second time under Frederick William and v. Moltke. On each occasion her army has become the pattern for all European armies, and her annual fields of maneuver the meeting ground for students of the art of war. Her first period of military supremacy was but of short duration, principally owing to political causes, but also to a falling off from the high standard of warlike efficiency which had been attained, a decline which had commenced even before the death of the great warrior statesman whose genius had raised his little kingdom to one of the foremost places among nations, a decline so rapid that within twenty years of Frederick's death the army which he had made a model one, imitated, and sometimes only too blindly, by other nations, entirely broke up and collapsed under the blows of a younger and more vigorous organization. As far as the military question goes, the reasons for this rapid decay of Prussia's fighting power are not far to seek. They are to be found mainly in the torpor which is too often with nations, as with individuals, the natural consequence of great success, in the idea that the system which has succeeded so well must be perfect and must always succeed, that in fact it is only necessary "to let well alone," as the saying is. You may slumber in peace. Unfortunately for the slumberers the world does not stand still, and while they are taking their rest changes unnoticed or unappreciated by them are constantly being made, till all of a sudden they are rudely awakened to the consciousness of a new order of things for which they, with their old-world notions, are utterly unprepared; and so they and those who have been guided by them give way

before men and nations who have kept awake. Situated as Prussia is geographically and politically, military decline must inevitably in a very short time produce a national catastrophe. Such was the case in 1806. The lesson was not lost upon the nation or its rulers. The painful reawakening of Jena led eventually, through some years of suffering and humiliation, to renewed life, and the warlike spirit, thoroughly aroused by the struggle for independence, has never since ceased to animate more or less the Prussian people notwithstanding a long period of peace, though had it not been for the fine example set by the present sovereign and his family, for the genius, energy, and persistency displayed by the statesmen and soldiers at the head of the Government and of the armies, this spirit could not have produced the mighty results which we in these latter days have witnessed. Again, for the second time in her history, has Prussia overcome every army which has met hers in the field, and again has her army, and this time, through its teaching, that of united Germany, become the best sample of warlike efficiency which the world can produce. During this second period of preponderance her success has been far more rapid, complete, and continuous, also on a much greater scale than during the former period. There would consequently appear to be more justification for allowing a course of placid repose to follow upon one of tremendous exertion; but no such feeling has arisen, or if there be some few among the older officers for whom age and weariness make a quiet life the one thing to be desired, their number and influence are not great enough to affect the general result; so that, instead of the torpor succeeding Frederick's successes, we find after v. Moltke's much greater victories constant, unremitting exertion and a never-ending struggle for improvement throughout the ranks of the army. Not a shot has been fired by it on an enemy since the spring of 1871; consequently a period of peace has elapsed about equal to that which intervened between Frederick's last war in 1779 and the invasion of France by the Duke of Brunswick in 1792; but whereas after Frederick's wars military knowledge remained at a standstill, while military spirit and efficiency degenerated, during the present peace, on the contrary, military spirit remains as strong as ever, while military knowledge and efficiency have largely increased. As far as can be seen, there is every prospect of a continuation of this reign of progress, for it has become the prevailing fashion of the army not to accept any part of its institutions as perfect, and to be constantly aiming at improvement. The saying "nothing is so successful as success" does not apply to the estimate formed by the German army of itself. It was successful in three successive wars within a period of only seven years, in the latter two of which wars success was on a scale hitherto unprecedented; yet after each of these wars, particularly after the last and greatest, there has been a general inquiry, "How can we do better next time?" Hundreds of busy heads are continually occupied in originating or carrying out improvements in administration, in armament, in

equipment, in organization, in tactics, in short in everything which conduces to efficiency in *war*. No invention of these inventive days which can in any manner be useful in warfare passes unheeded, even such a matter as the rearing and training of carrier pigeons being carefully studied. An enormous amount of new military literature appears annually, officers of all ranks contributing to it, and being thought the better of by those in authority for doing so. Many of these writers enjoy a world-wide reputation, their works being known and appreciated everywhere. Amongst the latest who has come into the lists as an author is one of the highest-placed officers in the German army, one who has held important commands on service during the late wars, and also during the subsequent time of peace. He is thus amongst those best qualified both by war and peace experience to give his opinion on military subjects. I speak of Kraft Prinz zu Hohenlohe-Ingelfingen, who has within the last twelvemonth published a series of letters on the three arms, cavalry, infantry, and artillery, a little volume devoted to each having appeared in the order above given. The author, so well known as an artillery officer, commanded the "reserve" artillery of the Guard Corps during the campaign of 1866, being wounded at the battle of Königgrätz, and the whole artillery of the same army corps in 1870-'71, playing an important part both in the battle of the 18th August at St. Privat and in that of the 1st September at Sedan. Though not in command of either infantry or cavalry on service, he had ample opportunities of watching the action of those arms in battle, particularly of the former, and after the peace commanded for seven years an "infantry division," which contains in the German service, as we know, detachments of the other arms also. Prince Hohenlohe's experience during his thirty-five years' service has been thus of a sufficiently varied character to qualify him as an authority on the subjects of which he treats, and I think that all those who read the letters will be struck by the breadth of view and earnestness which he displays. It is evident from his writings that he is a man of judgment and of observation, moreover of an ingenious and inventive turn of mind, and endowed with the true spirit of a soldier, whilst his record of service proves him to have been a cool-headed and able commander. The description of the scenes in which he took part or of which he was an eye witness is graphic and picturesque, bearing at the same time the impress of reality and accuracy.

In the introduction to the first volume of the series he gives his reasons for publishing his opinions and experiences in the form of letters. He states that having been often asked to give the army the benefit of his views upon professional matters, he was doubtful as to the form which the publication should assume, at first thinking of bringing out a book of memoirs, but rejected this idea because memoirs, or, in other words, the account of what a man sees and hears, differ very much in moments of excitement from what actually occurs, each man's views

being colored by his own immediate environment; consequently personal memoirs are sure to promote controversy and disagreement, things which it is well to avoid. Then the idea of a scientific work on the tactics of the three arms occurred to him, but this also was rejected, for, as he says, "there are so many and such excellent works of this nature. I could only repeat what has long been known and has been repeated over and over again." He ended by presenting his ideas to his comrades in the form of letters written in a familiar, gossiping style, and I do not think that his decision is to be regretted. It will be found, as may naturally be expected, when we consider the intimate connection between the different arms in war, that the action of all the arms is frequently referred to in each volume, for as all must work in combination it would be impossible to treat the subject in a fitting manner if attention were exclusively given to the one arm at the moment under consideration. My own remarks will be confined to the second volume of Prince Hohenlohe's letters, from which I shall give as copious selections as my space will allow, concluding with an extract from the "Militär Wochenblatt," the views advocated in which in a very clear and practical manner are, as will be seen, in complete accordance with certain opinions held by the prince. The passages which I have selected from his letters on "Infantry" appear to me such as specially require our attention, but I recommend a careful study of the three volumes, of which a complete translation would be desirable.

The first letter begins with the following striking passage: "After reviewing the performances of German infantry in the war of 1870–'71, one comes to the conclusion that it is not only the most perfect force of that arm which has ever existed, but that no more perfect infantry can be imagined. It is true that the Emperor Napoleon remarked, after the catastrophe of Sedan, that German victories were due to the Prussian Uhlan and to the Prussian artillery. Bazaine makes a similar statement in his 'Episodes.' It was doubtless owing to our cavalry that our adversary was blindfold, and that our armies had complete freedom of action; doubtless, also, German artillery had often to take a very active part in the work which properly belonged to infantry when the range was too long for the needle-gun to reply to the chassepôt; but after all it was always the infantry which had to do the main part of the work.

* * * * * * *

"Nothing would have been more natural than that our infantry should have believed itself to have attained the acme of perfection, and that it should hold fast to every detail of its institutions. But no; we have been surprised, on the contrary, to remark that a general desire for improvement prevailed throughout its ranks."

This desire has been maintained ever since, and is still maintained, not only in the infantry but throughout the army, as before remarked. With regard to the principal arm, it is well to bear in mind that great tactical changes were contemplated before the French war, and that a

new edition of the Field Exercise was actually published in the first half of 1870. Its adoption was, however, wisely deferred, and after the war so much consideration was required, owing to the experience gained during its progress, that the result was only made known to the army in 1876, when the edition now in force was issued. The tactical changes introduced are discussed here and there throughout the letters now before us, and are generally approved of, the great merit and salient point of the present regulations being that while extreme steadiness and precision of movement, complete adherence to established forms, are insisted upon at drill and when maneuvering in close order, very great discretion is allowed in the so-called "battle exercises" and in their counterpart, actual battle. The author's criticisms are chiefly confined to the manner in which the spirit of the regulations is understood and acted upon, and here he has a great deal to say. The first few letters are devoted to the individual drills and instruction of the soldier, which, as the writer points out, cannot be too careful in these days, when such a variety of knowledge is required, and when so much depends upon individual proficiency. I have made no extracts from the letters in question, because, though full of good hints, the system described in them appears not to differ materially from that in operation at home. It is, however, and this is an important point, worked out in a more steadily progressive and systematic manner than with us. Then we come to company drill, looked upon with justice by the Germans as a matter of paramount importance, not only for training but also for discipline.

It is within the limits of the company that, as Prince Hohenlohe phrases it, the soldier learns the "how," that is to say, the details of execution of the "what" afterwards practiced at battalion exercises, and later on applied to the requirements of the battle-field. It is in the company principally that he learns the duty of obedience, and that he gains that confidence in and respect for those in authority over him without which true discipline cannot exist. The chapter upon the company officer is excellent and instructive. We now arrive at battalion training and inspections. The manner in which these matters are conducted by commanding officers and inspecting generals is severely criticised, and it is somewhat surprising to find how much "unrealities" are in vogue even under the very practical military system of Germany.

Prince Hohenlohe does well in drawing attention to the fact that the prevailing style of inspection virtually regulates the manner in which troops are trained, for given good material you can work it into any shape required. It is for the heads of the army to choose the right shape. The importance of developing individual initiative in subordinates is strongly insisted upon, and this can be accomplished to a great extent by a judicious system of training; but if officers are not accustomed to think and act for themselves upon occasion in peace time, they must learn to do so on service, and often do not acquire the habit

soon enough for themselves and for their country. It may be considered superfluous nowadays to preach the necessity of fighting in extended order, using the term in a large sense, not only as applied to the individuals composing a tactical unit, but also to those units in relation to one another; yet such exhortations are evidently required even in Germany, where the principle of extended order has long been firmly established. How much more so with us, seeing that the form of tactics supposed to be the most suitable to modern requirements, and practiced accordingly by our soldiers in peace time, has to be so often departed from in the wars which one part or other of our army is almost always waging under conditions which render it necessary to return in greater or less degree to tactics considered obsolete in civilized warfare. Consequently, I think that no occasion should be lost of reminding ourselves that, necessary as formations in close order may often be when encountering foes such as Zulus, Afghans, or Soudanese, to meet a civilized army in such a manner would be to court disaster. The author's remarks upon this subject are well illustrated by battle pictures drawn from his own experience. In the same manner he adds force to his views upon flank and frontal attacks, upon the action of infantry against and combined with cavalry, and upon the supply of ammunition to troops in action, one of the most difficult problems to solve, and one which v. Moltke is reported to have pronounced insoluble, meaning probably when engaged at close quarters. The author's suggestions to infantry upon this point are practical, and will be found further on. The eleventh letter treats of the attack of a position by infantry supported by artillery across perfectly open ground, the most difficult operation which infantry can in these days be fairly called upon to perform, and one for which a great many recipes have been invented in all countries since the breech-loader was introduced. The author gives a very good picture of such an attack, which, if conducted properly, is, however difficult, far from impossible, as we know from the history of the last European wars. The chapter on fire discipline is well worthy of study by officers of all armies, not excepting our own, which is far from being as superior to all other armies in that material point as it used to be in the days of the smooth-bore musket. The reason of this is, I think, not far to seek. I do not believe it to arise from any deterioration in the physical and moral qualities which contribute to "steadiness" in the soldier, but from the want, till quite of late years, of the most practical part of training in the use of the rifle, what we call "field firing" and the Germans call "battle shooting." They and other foreign nations have carried it on systematically for some years. We have only taken to it recently, and I believe that even now we do not put the men through a preparatory course of *individual field firing*, as do our continental friends. The next letters, portions of which are included in the following extracts, treat of the training of the regiment and of the brigade. The concluding letter, that on the "Geist der Infanterie"—

the spirit of infantry—that true soldier-like spirit which maintains firm discipline throughout the most rigorous hardships in moments of excessive peril and impending disaster, throughout periods of depression when mere excitement, enthusiasm (*Begeisterung*), so animating at the commencement of a popular war, has faded away, or at any rate is not sufficient to make men bear up against hard times. The prince says, "The spirit of our troops manifested itself in the fact that they never considered themselves beaten." Napoleon I said something of the same sort of our infantry. I think that recent events have shown the saying to be as true now as it was then, and that in the matter of *Geist* at least we have no occasion to envy the Germans.

The supplement to the "Militär Wochenblatt" contains four examples of tactical exercises, of which I give the first two, which appear to me good specimens of what such exercises should be, being very simple and instructive. The critique at the end of each is specially worthy of study. The other two exercises are more complicated, and in some ways more interesting. The little book forms an excellent sequel to Prince Hohenlohe's letters, as the writer, whoever he may be, enters fully into the prince's views as to tactical training and attempts to carry them out in practice.

SELECTIONS FROM "MILITÄRISCHE BRIEFE."

Individual action and extended order in battle.

When we examine the further development of our infantry training we perceive that both in the movements of the soldier individually and in combination with others, both in rifle drill and in the practical use of the weapon, the same care is taken to make each man a reliable independent agent as we noticed when treating of the elementary instruction of the recruit.

* * * * * * *

As soon as each man has learned to march well, that is to say, naturally, freely, with confidence, without constraint, and with upright, manly bearing; as soon as small squads with three paces interval between the men can march on a point keeping a good alignment and can make good wheels, there will be but little trouble in mastering company drill. How well the proficiency attained by the individual soldier repays you for the trouble expended upon his training!

In this we find one of the many reasons for the excellence and superiority of our infantry, for we cannot doubt that the careful training of the soldier to act for himself in battle, and yet to pay every attention to the orders of his leaders, contributed greatly to our late successes. Whenever this excellence of individual training was taken full advantage of our infantry was very successful, with comparatively little loss; whereas whenever the commander acted upon the opposite principle our casualties were so numerous that not only was success endangered, but defeat would most surely have resulted had he not quickly reverted

to action in extended order. In my first letter I referred to a certain combat as evidence of the small loss incurred by regiments attacking in skirmishing order as compared with the fate of those obliged to attack in company column.* Allow me now to describe an incident in the battle of Sedan, of which I was myself an eye-witness. We were in position on the east of and fronting towards the deep valley of Givonne, containing the village of the same name, which was occupied by rifle and fusilier battalions of the Prussian Guard. It was about 1 p. m. The enemy's infantry had abandoned the opposite face of the Givonne Valley, retiring up to the Bois de la Garonne, situated on higher ground. Certain companies of our infantry had taken advantage of this circumstance to establish themselves on the further side of the valley. Thus, a company of the rifles (*Jäger*) of the Guard advanced from Givonne right in front of my line of artillery, whilst in front of its left flank two companies of the Franz Regiment, under Captain v. C——, moved forward from Haybes and extended in a single thin line of skirmishers along the brow of the opposite hill-side. The enemy's artillery fire was almost silenced. Suddenly a dense mass of French infantry emerged to the south of the Bois de la Garonne from the depression which runs from that wood into the Fond de Givonne, rushing at full speed straight on Haybes, a movement which could not fail to bring it into collision with the two companies of the Franz Regiment. At the moment I estimated this mass of men at from 5,000 to 6,000, and I still think that my calculation was not far out, for it appears from the French accounts to have been the Grand Champs Division, forming the left wing of the force with which Wimpffen made his desperate attempt to break through our line. These masses of men formed in deep columns, rushed on, firing incessantly as they ran, with rifle held horizontally to the hip, thus enveloping themselves in clouds of smoke. I could see distinctly with my telescope how the men ran along, loading and firing, without raising their rifles to the shoulder; but all that was visible to the naked eye was an enormous lump rolling forward, the upper part of which was blue (from the coats) with a broad whitish gray band below (smoke), and below this again the red of the trousers glittering on the quivering legs. I immediately directed the whole of the batteries constituting my line of ninety guns to open a rapid fire upon this column; still I could not but feel anxious for the two companies of the Franz Regiment pushed forward across the valley, because should the enemy suc-

* See page 5 of "Ueber Infanterie." In an attack on a village, during the latter part of the war, two regiments took the portion of the outskirts told off to them almost without loss, two other regiments on the same occasion suffering severely. The reason of this was that they were commanded by officers who, having been wounded at St. Privat, had only rejoined their regiments the day before the fight in question, and had not yet practiced the new form of attack. They led their men on in the old fashion, in company columns, and exposed them to fearful loss. Both these gallant officers met their death on this occasion.—Tr.

ceed in getting within 200 yards of our people my guns would no longer be able to fire upon the head of the attacking column for fear of hitting our friends. And in fact, though our shells fell and burst amidst the dense throng, causing fearful havoc and producing to the eye the effect of a tangled skein made up of smoke and dust, of various colored clothes, with human limbs and bodies hurled into the air, yet the confused mass kept rolling on and drew nearer and nearer, for the enemy was inspired with the courage of despair. The time soon came when I was obliged to forbid further firing on the head of the column, and then we saw the front ranks of the assailants detach themselves from the crowd and rush upon our two companies. The contrast which our men presented to their foes was striking. Instead of the thick cloud created by the heavy fire of the Frenchmen, I could, with the aid of my telescope, only make out a puff of smoke here and there along the Prussian line of skirmishers, who lay flat on the ground, with rifle at the shoulder and taking steady aim.

Captain v. C—— alone could be seen moving along the line, looking as smart as we remembered him of old in a ball-room. He was cautioning his men (as we afterwards heard) to aim steadily and to fire slowly. Every shot laid an assailant low; the number of those approaching the Prussian line got smaller and smaller; a few actually closed with our men, meeting death at the very muzzles of their rifles; two of our skirmishers were even bayoneted in the back from above as they lay; but the attack, though conducted with great determination, entirely collapsed, and the few survivors took to flight, pursued by the deadly bullets of our riflemen. The entire mass was broken up in ten minutes. On the other hand, the total loss of the Kaiser-Franz Regiment at Sedan was only 2 officers and 80 men,* of which loss only a small fraction can have fallen to the lot of the two companies in question. So great is the superiority of a well-aimed and well-directed independent fire from a body of soldiers individually well trained over the "shock tactics" of dense masses.

The war of 1866 had already borne evidence to this truth through the annihilation of the gallant Austrian columns of attack, but at that time the success of our infantry was attributed more to the superiority of its breech-loaders than to its battle tactics, for in that war our infantry often fought in close order. In the case just described, however, it was the troops with by far the better fire-arm who adhered to formations in mass, and who did nothing against their worse-armed enemies, notwithstanding their great numerical superiority—6,000 to 300; and even though the gallant 300 were supported by such a tremendous artillery fire that we may assume half the French column to have been

* In Dr. Engel's official report of losses of the German army the total number of casualties in the Kaiser-Franz Regiment at Sedan is put at only 67.—Tr.

destroyed by it, the proportion of assailants to defenders was only thereby reduced to 3,000 *v.* 300—10 *v.* 1.*

We may assume that the superiority thus existing of the independent fire of skirmishers on the defensive against the charge of masses must now be still more striking in consequence of the subsequent improvement in small-arms. We can well understand how painful it must be for leaders grown worn and gray in the service to relinquish such familiar and well-loved battle pictures as presented by the formations of Frederick the Great, who in person led to the assault battalions in close order, with colors flying and bands playing, halting them to fire a volley at 100 paces from the enemy; but such formations can now no longer be dreamt of in these days of "Gras and Mauser." Even that fine picture of the brigade of six battalions, of which three are deployed in front line and fire volleys, the others thereupon passing through the intervals to charge with the bayonet, is no longer in keeping with the times. New inventions produce changes, and pictures which have been dear to our imaginations "melt into thin air." We must reconcile ourselves to this. The dearly-loved battle tactics of the mediæval chivalry had long ago to be given up, and with them the ideas of rivaling an Arnold of Winkelried, and of deciding the fate of battles by gathering the enemy's spears into your breast, thus making a breach in the hostile ranks. And in like manner we also must make up our minds that the magic influence exerted in former days by the measured tramp of the advancing column to beat of drum is now dispelled, and, indeed, tells the other way, as the fate of such a column would now be annihilation. On that account, indeed, the expression "column of attack" has been expunged from the last edition of our field-exercise book, giving place to the form "double column" (*Kolonne nach der Mitte*), a proof that the use of the old battalion column of attack under close fire is completely abandoned; and even the employment of the company column is very much curtailed. Nine times out of ten it will merely act as reserve to the fighting line, and only quite exceptionally will it be able to march up to the front in close order at the decisive moment. On the few occasions when this is feasible the movement will certainly produce great effect. For instance, at night, when darkness diminishes the effect of arms of precision; again, when smoke or the physical and moral influence of severe losses clouds the defender's vision, or when the nature of the ground is such as to afford cover to the advancing column. The individual action of skirmishers in the firing line will, however, be on all occasions the most important part of the infantry

* The prince, who was commanding the artillery of the Guard Corps, perhaps hardly makes sufficient allowance for the effect prdouced by the fire of his batteries on the French masses. Probably the moral as well as the physical effect of this fire had more to do with the discomfiture of the Grand Champs Division than the resistance, brave and skillful as it was, of the Prussian skirmishers.

Wimpffen, in his book on Sedan, gives no details of this affair.—Tr.

soldier's fighting, and the army which learns best how to train each individual foot soldier to make the most of his fire-arm, and at the same time to act upon the signs, the orders, and the example of his leaders, will gain a decided preponderance in war.

For of what use is action, however vigorous, unless directed with good judgment upon the decisive point? In this consists the difficulty of military training. The men must be accustomed, though fighting in extended order, to obey the commands of their officers and to maintain perfect discipline. This combination of discipline (steadiness) with individual initiative was the great secret of the superiority of our infantry in 1870–'71, and will surely give the preponderance to any infantry over another inferior to it in that respect. This fact has been recognized by our authorities, and is the motive for all the alterations to be found in the Infantry Field Exercise Book of 1876. Not only, as already noticed, has the old "column of attack" disappeared as a battalion formation, without leaving a trace behind it, giving way to the "column on the center" (double column), which again is only employed as a formation for assembly out of fire,* but it is worthy of remark that in Chapter XIV the formation in two ranks (company columns) is established as the normal fighting formation, and that the greatest part of the book is devoted to fighting in extended order. The alterations thus made prove that those at the head of our army gathered from the experience of the last war, successful as it was, the necessity for tactical improvements, thereby admitting the previous existence of imperfections. This admission entails no shame on those who made it, but is, on the contrary, highly creditable to them.† In fact, if we trace the course of the combats during 1870–'71 in all their details, we cannot fail to be convinced that whenever any portion of our infantry met the enemy for the first time they exposed themselves to fire in columns which were too large and too deep, and that this was one of the principal causes of the severe losses experienced in the earlier actions. I myself can only speak as a spectator, and that a distant one, of the part played by the Guard Corps in the battle of the 18th August, for I was in the center of the line of artillery,‡ that is to say, a good deal to the right of where the chief infantry attack took place. I need tell you no more about the way in which the infantry of the Guard attacked St. Privat, for you have read and heard enough about it, and you are well aware that the losses experienced by the corps on that occasion gave rise more than anything

* The double column of "company columns," *i. e.*, of *Züge* formed in two ranks, is the normal rendezvous formation for infantry when prepared for action. (See last edition of "Exercir-Reglement für die Infanterie," March 1, 1876, page 113.)

Our old double column of half-companies was equally handy.—Tr.

† The conduct first of the Prussian army, afterwards of the German army, in constantly seeking to surpass itself, is one of the most noteworthy points in the military history of the nation. Most armies after such unparalleled successes would have gone to sleep and rusted on their laurels.—Tr.

‡ The artillery of the Guard Corps commanded by the prince.—Tr.

else to the many suggestions and experiments made with a view to devising some tactical formation calculated to prevent the recurrence of such fearful havoc in the case of a similar offensive movement over an open plain. One thing deserves notice as evidence of the destructive nature of the fire from St. Privat. A flock of sheep took flight, broke out of the village of Ste. Marie, and galloped along the front of the Prussian infantry, creating a great dust, owing to which it was probably mistaken by the French riflemen for a body of cavalry, and perished under their fire to the last sheep (a godsend to our guardsmen, who all dined on mutton the next day). There are situations in battle in which men's minds are so occupied by the dangers of the moment that all evolutions become impossible; in such cases you don't know right from left; the only thought is "forwards" or "backwards."

When our men, on the day in question, came all at once under full force of the enemy's fire, of which they had hitherto thought but little, the only thing dreamed of was to continue the forward movement; recognizing the necessity of this, all the battalion commanders and their officers merely shouted "Forward," "Have at them"; and so it came that those very "shock tactics" which four years before had failed before our fire were to all appearance to be tried by us in our turn.

But out of this attack of masses action in extended order soon developed itself, for the fearful gaps made by the enemy's bullets soon loosened our serried ranks, converting the companies into an open line of groups (*Schwärme*), which, honor be to the gallant fellows, kept moving on till near enough to the enemy's position to be able to reply to his fire.

They then were ordered to lie down, taking cover as well as they could in the furrows, and to keep up as hot a fire as possible, thus, with the support of our advancing batteries, preparing the way for the final assault, which was necessarily postponed till the left wing of the Twelfth Army Corps was able to act upon the flank of the defenders.

The company.

You have entirely misunderstood me if you have gathered from the wish which I expressed for some alteration in our drill regulations that I desire to reduce in the least degree our steadiness and precision. On the contrary, whilst wishing to see such details as practice in turning, in the rifle exercise, and such like, discontinued as a part of battalion drill, I meant to insist all the more upon such elementary branches of instruction being taught most thoroughly and exactly at company drill; and at the same time I recommended that these details should be limited to what is absolutely necessary, so that each point should receive all the more attention, and that drill should be conducted under the closest supervision; in short, my desire is that elementary tactical instruction should be completed in the company instead of being carried on, as now, in the battalion. For the mode of fighting rendered neces-

sary in these days by the perfection of fire-arms has made it incumbent upon us to operate with companies instead of with battalions, as every action portrayed in our general staff history of the late war demonstrates. Hence the company has become the real tactical unit, although for the sake of convenience and control we still reckon by battalions, because the company has not lasting power enough for any length of time, and may easily be used up in action. We must thus pay the most careful attention to the training of the company in all details, whilst in dealing with the battalion we go beyond the elements and enter more or less into the domain of applied tactics. I have, therefore, always tried, as far as possible, to confine the attentions of the company to the "how" rather than the "what," whilst applying just the opposite rule to the battalion, for the captain is very rarely called upon to perform great tactical or strategical operations on service. His objective, whether he be on the offensive or on the defensive, is in general very clearly marked out for him, but his own immediate share in the action is successful or not according to the manner in which he carries out his instructions, to the way in which his men take advantage of the ground, to their skill and steadiness in firing, to their attention to all signals and orders; for the more the fate of battles depends upon the independent action of the individual the greater is the demand upon discipline, that is to say, upon ready obedience, thanks to which the independent action of the many is concentrated into one great whole, one great power. We have had quite lately a proof of how all the latest inventions—breech-loaders, mitrailleuses, rifled guns—count as nothing against the most primitive of all weapons, the spear, in the absence of discipline. I allude to the destruction of Baker's troops near Suakin. For I cannot allow that the Egyptian is by nature a coward. The troops of Mehemet Ali and of Ibrahim proved the contrary in the first half of this century. To resume: I consider that up to and within the company all tactical instruction should be confined to the correct performance of specified evolutions, and even this will give the captain quite enough to do.

* * * * * * *

The company officers, captains and lieutenants, are really the very soul of an infantry regiment as regards instruction and performance of duty. The corresponding officers of other arms are doubtless of similar importance, but still we must remember that when dealing with cavalry we reckon by *horses*, with artillery by *guns*, whereas with infantry we have only to do with *men*, which shows that in the last-named arm human nature is alone in question, and the influence exercised upon the individual soldier, therefore, attains its highest importance in the infantry.

This influence, this power over the feelings of the men, is only possessed by the company officer. The non-commissioned officer is the assistant of the captain and of his subalterns, carrying out their orders,

having himself been formed by them, whilst the field officer, again, is too far removed from the private, and cannot be expected to have an intimate knowledge of all the men of his battalion. The company officer alone knows each Tommy Atkins individually, having instructed, praised, blamed, punished, and rewarded him. On that account the soldier follows his officer into battle with confidence, and it is his immediate superior who can best rouse him to deeds of valor. Who has not witnessed many examples of this in war? During an outpost skirmish which took place on Easter Monday, 1864, in front of the redoubts of Düppel, when the enemy's rifle-pits were attacked at night, two companies of our Eighteenth and Eighth Regiments ran beyond the pits, instead of occupying them as intended, found themselves at daybreak close to the Danish redoubts, which were too strong to be carried by assault, and had to retire with severe loss. An Upper Silesian private being blamed for having gone so far ahead by his squire, who had followed the army as a Knight of St. John, replied in his broken German, "But, my good sir, when the lieutenant goes ahead one is bound to follow." Again, during a fight in a village before Paris the church-yard on one side of it was occupied by a half-company of ours. The regiment to which this detachment belonged had always been remarkable for gallantry, so we were all the more astonished when the enemy, making a sortie, carried the church-yard with a rush, in consequence of which we had to storm it again. After the fight I asked some of the men belonging to the first garrison how it was they let the French turn them out. "It is just this," said they; "there was no officer to tell us what to do, so we just bolted."

Both officers had unluckily been knocked over by the enemy's artillery fire at the beginning of the affair, one being killed, the other wounded and insensible. But no further examples are necessary. Every infantry officer who has been in action can cite many instances which prove that in our army the company officer is the guiding spirit of the infantry, inspiring the men with his own ardor and followed by them with perfect confidence.* Even in the last century General v. Rüchel remarked, "The officers are the soul of the Prussian army;" and since in these days it has become necessary at the most critical period of battle to dissolve the mass of fighting men into atoms, which can only be reached by the voice of the nearest lieutenant, the truth of the general's saying has become all the more striking; so that if I maintained in my second letter that it was not the Prussian schoolmaster but the Prussian non-commissioned officer who had gained our victories, further consideration now leads to the assertion that it was neither the schoolmaster nor the non-commissioned officer but the lieutenant who gained the day for us. Not but what this same lieutenant is in

* And so it should be in all armies. In few, if any, however, is the influence of the company officer as strong as in that of Germany, for in few armies are the power and responsibility of the company officer sufficiently recognized.—Tr.

peace one of the soldier's schoolmasters. In saying this I do not for a moment mean to depreciate the work done by officers of higher rank, and I will at once warn my readers that in my further observations I shall carefully guard myself against doing so. At present it will be sufficient to remark, in order to prevent any mischievous deductions being drawn from the rather paradoxical statement just made, that all officers of higher rank were once upon a time lieutenants, and that all lieutenants will some day become officers of the higher grades. But just now we have to deal more especially with the infantry lieutenant, or rather with the company officer, including the captain, and we ask whence arises the influence which he exercises over the masses—an influence which creates marvels of heroism, and which leads men to obey his every nod even in moments of the greatest peril, when the loosening effect of the modern mode of fighting has emancipated them from immediate control and supervision. The answer to this question is, it arises from the officer's unwearied energy, from his spotless honor, from his Spartan frugality. There have been times of piping peace when to men in general the work of an officer appeared limited to mounting guard and to spending, during spring and summer, some hours daily at drill or in maneuvering across country. It was during this period that certain nicknames for the lieutenant originated, such as "pavement crusher," and such like; but when do you now see a lieutenant idling in the streets? If ever, it is at midday, when the men are dining and he is on his way to a restaurant to get his lunch, for his dinner hour is at 3 or at 4; and again on Sundays, when he is paying visits to his friends. Otherwise he is fully occupied from early morn to dewy eve. At sunrise he has to inspect his men, to see that they are clean and orderly, and to find fault if occasion arises. Then he instructs and drills each man individually. Gymnastics, marching exercises, construction of the rifle, practice with it, field duties, and interior economy—all these things have to be taught, and he should in every way furnish in his own person an example to be followed, because the soldier will only learn to do anything at all as long as the officer can do it better. And so he is busy throughout the livelong day. To the casual observer, who only gains an occasional glance at a parade-ground in crossing it, it seems as if the little matters of drill can be got through easily in a few hours, but the infantry officer knows what pains and labor are required for the purpose; and whoever, even without being a soldier, will read my former letters with unprejudiced mind, will understand this, particularly if he takes count of the time expended in learning the use of the rifle. A company fires away 15,000 to 20,000 shots annually at target practice, not a shot being fired except in presence of an officer, who is responsible for the observance of all regulations to insure safety, and for the entry of every shot in the company register. There are seldom more than two officers in a company available for this duty. What a trial it is to the nerves, to the endurance, to the conscientiousness of the officer, who must never

for a moment allow his attention to relax when on the practice-ground, but must stand there hour after hour, winter and summer, at one time in snow and frost, at another under a scorching sun, watching every shot, seeing to the position of the firer, to the observance of all rules for the prevention of accidents, to the correctness of all entries. For if there is the slightest neglect, accidents will arise, and the officer at the firing-point will be tried by court-martial. In addition to this, he has often to perform his duty in spite of the ill-will and opposition of civilians, and even of the civil authorities; for the latter have sometimes taken upon themselves to prohibit officially the continuation of target practice because a rifle has happened to go off when pointed up in the air, thus endangering people behind the butt. And this may well be, for we have known men accidentally wounded in action at a distance of 4,000 paces from the enemy's skirmishers. Many think that the lieutenant has done all his work by 4 o'clock, when he goes to dinner. Not so. Hardly is dinner over when the lecture time begins, when it is the business of some of the lieutenants to give theoretical instruction to the non-commissioned officers, of others to instruct the privates. This branch of instruction is positively necessary, especially in military matters, to which, however, the instructor does not confine himself entirely; on the contrary, he teaches his men many things which are afterwards useful to them in civil life, and the few recruits who join without knowing how to read and write acquire these arts whilst in the army. Many men learn more whilst in the ranks than they have done during the whole of their previous schooling. I remember when I was a lieutenant I taught reading, writing, and arithmetic to a recruit who had plenty of brains but whose education had been neglected, and who afterwards became sergeant, and later on an excellent paymaster's clerk. Army schools produce better results on an average than civil schools, because the scholars in the former, being twenty years of age and over, have greater application and appreciate the advantages of education better than the children who attend the latter.

On that account they lean more upon the teachers of their riper years, following their lead in times of hardship and of danger. But the day's work of our lieutenant is not yet over, for besides having to perform his daily duties he has to perfect himself in performing them. He must himself practice gymnastic exercises; he must study, give lectures, attend all regimental conferences, write professional essays, and take part in the war games. Three or four evenings of each week are spent in this manner, the remaining evenings being alone available for society and amusement. In fact, so hard is the work of the regimental officer that those who succeed in gaining admission to the *Kriegsakademie* (which answers to our Staff College) find the course of study there, severe and trying as it is, quite a relief after the worry of regimental duty. But the captain is even harder worked than the lieutenant. He shares the labors of his subs, and whilst they give

special instruction goes from one to the other to superintend and at the same time to assist and give counsel to the more inexperienced amongst them. If he goes to his quarters, hoping to devote an hour to relaxation or to family intercourse, the company sergeant-major is sure to make his appearance with a "crime" which has to be inquired into and disposed of, the entry being duly made in the defaulter's book. Another time it will be some question of accounts; or his presence will be required at the "stores" to fit his men's clothing; or he will have to see to some irregularity in the barrack-rooms, for he is responsible for all that concerns his company down to the minutest details, and must be conversant with everything. And thus it has passed into a proverb that the commander of a company can never be sure of his life, because he can never enjoy it. I know well that officers of similar rank in the other arms have their time quite as fully occupied, but the infantry lieutenant must run about on foot during the hardest part of his work, that is to say, at drills or maneuvers, whilst cavalry and artillery officers ride; so that greater demands are made upon the strength of the former. But labor and exertion alone would not qualify the officer to exercise so remarkable an influence over his men if he did not pride himself, as he does, upon his spotless honor, and if the private soldier were not convinced that he can depend most entirely upon that honor. The soldier is well aware that the officer is his superior in that respect; he knows that the officer will always of his own accord go to the front to set him an example; that the officer will, for the sake of his own reputation, always be the first where there is danger; and thence comes the feeling that he, as it were, belongs to the officer, that it is impossible to leave him in the lurch; in short, that spirit which found its expression in the words, "When the lieutenant goes ahead we are bound to follow him."

I might fill volumes before exhausting all I could say upon this point of the officer's honor; but were I to pursue the subject further with you, it would be a case of "carrying coals to Newcastle." The high standard of honor in our corps of officers is recognized with admiration by all cultivated civilians, and is viewed with ill-will by all those who desire to upset our social and political institutions. How such men rejoice and scream with delight when an occasional instance occurs if one out of ten thousand officers disgraces his position. For some time the papers are full of it, and make use of the case to throw discredit upon the whole corps of officers; but in vain, for as a body it remains unsullied. It drives from its midst, without pity and without hope of pardon, the erring individual, and rises in public estimation by its honesty and plain dealing, because showing that it cares not for an outward varnish of respectability, but must be honest to the core.

* * * * * * *

The third quality mentioned as productive of the officer's influences over the men is Spartan frugality, in which the infantry subaltern sur-

passes those of the other arms, and this same frugality, amidst his many labors, testifies to his high feeling of honor. There are certainly some cavalry officers equally frugal, but one finds, as a general rule, that most of the young gentlemen who are comparatively well off, and thus need not live so penuriously, join the latter arm. But the great majority of infantry officers are wretchedly poor, and the pay which they receive for their increasing labors is very small—so small that our great statesman when in the Chambers spoke of the "brilliant misery" of the lieutenant of the period. Even now a lieutenant's pay and allowances* are so small that he is exposed to bitter privations unless helped by his family—privations which he bears quietly in private, whilst in public he maintains the dignity of his position. Many parents, doubtless, when their sons join the service, draw upon their capital to give them an allowance as long as they are subalterns, but many more cannot do this. I have known young gentlemen from the Cadet Corps join my regiment whose mothers, officers' widows, could give them nothing but $5 once for all and an old coat of their fathers'; others belonging to good old families who did not even get their $5, and whose sisters reckoned upon getting some of their scanty pay. You must not, therefore, be surprised to see a young officer who has been invited to tea by some friends display a wonderful appetite for bread and butter. He may confess some day, when he is better off, that on the evening in question he was so hungry because he had gone all day without food for want of money. Another will buy the daily bread rations of his servant, who is better off than himself, under the pretext that it suits his health better, but really because it is cheaper than any other bread. That officers such as these freeze in their rooms because they cannot afford to buy fuel; that they walk about in cold weather without overcoats, so as not to wear out their good uniforms too quickly, pretending that they can't bear warm clothing—all this will be well understood. At the same time, when these same stoics have to appear on parade, in public places, or in society, they are remarkable for the elegance of their appearance and for their cheerful mien. You may perhaps object that there are exceptions to this rule; that there are officers who give way to the prevailing love of pleasure, who waste their own money and the family property, ending by being plunged into debt. I reply, How can you expect all officers to escape infection by the prevailing epidemic? But the exceptions prove the rule, and the

---

*The pay and allowances of an—

Infantry first lieutenant are (maximum)	£105
Infantry first lieutenant are (minimum)	83
Infantry second lieutenant are (maximum)	96
Infantry second lieutenant are (minimum)	73

the pay being the same everywhere, but the allowances varying according to the nature of the garrison town.—Tr.

wonderful hubbub created by such exceptional cases is of itself sufficient proof that the public is accustomed to and expects Spartan frugality on the part of our lieutenants. What, now, is the private soldier's feeling with regard to such an officer? He does not pity, but is full of respect for his lieutenant. He soon learns from his comrade, the officer's servant, how his master fares, and when he finds out that the latter is comparatively poorer and worse paid than himself, and can afford to spend less on amusement than he can—although his instructor in all matters and his guide in danger and difficulty—how can he help following such a leader with all his heart?*

The battalion.

The training of the battalion is divided into two parts, namely, drill and battle training. Our Field Exercise Book gives all necessary directions for both. Those concerning battle training are so elastic that they can be adapted to every situation, and are not only quite sufficient for the purpose, but we can hardly imagine them capable of improvement, affording as they do a good foundation to build upon, and at the same time leaving plenty of room for individual action, thus encouraging to the utmost that initiative on the part of subordinate officers which is so necessary an accompaniment of fighting in extended order. The more I study our Field Exercise Book the more I admire the spirit which inspires it, and which finds full expression in paragraphs 112 and 127,† the latter of which is intended specially for the brigade, but is also applicable to the battalion. Yet we often—nay, generally—find that those paragraphs are not acted up to at battalion exercises. On the contrary, the further we get from our last experience of war the more stiff, conventional, and formal become the tactics and training of our battalions, unless inspecting officers use their influence against this pedantry, and insist upon the form being subordinate to the spirit. This is, however, a difficult matter, for the existence of stiffness and formality in such things is not a sign of indolence, but rather of excessive zeal on the part of the battalion commander. Hence it follows that the manner in which the officer handles his battalion becomes day by day more and more incompatible with the realities of war, whilst this very consequence is produced by the commander's earnest endeavor to bring his battalion up to the highest pitch of perfection. I will cite, by way of example, a few cases in support of my assertions. Al-

* The comparative poverty of the German landed gentry is doubtless favorable to her military strength.—Tr.

† Paragraph 112 contains "general remarks" upon the eighteenth chapter, which treats of "The battalion in battle; the use of skirmishers and of company columns in general."

Paragraph 127 contains "general remarks" upon the twentieth chapter, which treats of "Movements of the brigade when in order of battle." Both paragraphs contain much that is noteworthy founded upon the latest experience of war.—Tr.

though we find at page 152 of our Field Exercise Book* the employment of the battalion column distinctly prohibited except under certain special circumstances, the greater part of the time spent in battalion exercise is devoted to extending skirmishers from the battalion column, which, after the skirmishers have extended and opened fire, remains so close to them that it would most certainly share their losses if thus situated in actual warfare. The utmost they do is to push forward the flank companies, and the great aim is to arrive at this normal formation with the central companies exactly in rear of the middle of the interval. One rarely sees advantage taken of the latitude given as to which and how many companies are thrown forward, or of the variations sanctioned† in paragraph 111, or, again, of the injunctions given in paragraph 112. At the outside one sees towards the end of the drill some movements with companies in two or three lines, but without any application of such movements to battle.

Observe the manner in which the simple operation of re-enforcing a line of skirmishers who are lying down and firing is carried out. According to regulation tactical order must be preserved, and intermingling of different units in the firing line must be avoided. So when a fresh *Zug* comes up in extended order to re-enforce the old skirmishers, the latter generally stand up and close right or left to make way for the new-comers.‡ Would such a flank movement be feasible if the action were sufficiently severe for re-enforcements to be required? Would not the men who stand up and close be sure marks for the enemy's fire? Might not the *Züge* which first move out leave intervals between them for any re-enforcements which may subsequently be required? Would not the men, moreover, be thus more under control of their officers, being extended over less ground, and would not their fire be thus more effective? Being thus kept together also, would they not have better opportunity of availing themselves of cover by taking advantage of accidents of ground? The de ect referred to becomes more evident when several battalions are side by side in brigade, the skirmishers being then often directed to cover the whole front, and to extend themselves equally along it, so that they are often ten paces apart, although the maximum interval sanctioned by regulation is three paces a man

* The passage reads as follows: "Under effective fire of the enemy the employment of the battalion column is only justifiable under particular circumstances. The normal fighting formation of a battalion in first line is therefore in company column."—Tr.

† Paragraph 111 treats of the use of "company column," and is well worth study, as it gives a good account of the many ways in which this valuable formation may be employed.—Tr.

‡ I am surprised to find that anything so unpractical should be still tolerated in the German army. The absurdity of such a practice was pointed out to me when, as a recruit, I began to learn the art of skirmishing in the Forty-third Light Infantry, nearly forty years ago, and doubtless neither that regiment nor any of the old light division regiments had been allowed to act as described in this letter since the days of the camp at Hythe.—Tr.

and six paces a file. As if there could by any harm in leaving intervals of even 200 paces between the skirmishing *Züge*, and as if any body of enemies could make its way through such an interval without being destroyed. Again, when do you see a battalion commander allow officers in the firing line to judge for themselves whether to employ individual or rapid independent fire, the group volley or the fixed number of rounds, as most adapted to the circumstances of the moment? Or does the battalion commander ever permit captains of companies which are moving up in support to employ the formation which each thinks best for the occasion—line, column, or what not? Does he not, on the contrary, prefer that all companies should act alike, for the sake of appearance and uniformity? Would he, however, on actual service be always able to regulate such things himself? I will only mention one of the formalities to which the regular shape of the drill-ground is apt to give rise, and which often has a damaging effect on the intellect. When a battalion has been skirmishing and the assembly sounds for double column to be formed, according to the usual custom, at the end of the exercise, the front of the column generally faces exactly towards the side of the drill-ground, because the battalion is generally expected to march past before going home. Therefore, an oblique formation is rarely practiced, so that there would be a good deal of bother and loss of time if the battalion were called upon to assemble fronting a certain position, we will say on a certain church tower. To gain the power, however, of doing this sort of thing quickly is an important part of war training, without which there would be an excessive waste of time and a great deal of useless fatigue entailed upon the men if an officer were ordered to form up masses of troops in a position suitable to the ground; for instance, under cover in rear of a line of heights, and such like.* Barrack-square customs such as that just referred to exist in great numbers, without mentioning the little shifts and dodges inapplicable to war, but which promote smart and steady drill before an inspecting officer. Every soldier knows this, and I will not weary you by detailing them, but will proceed to treat of the personal action and demeanor of the battalion commander.

At the commencement of the "battle exercise" you will see him on horseback by the side of the first skirmisher who opens fire, and who is made to lie down flat for the sake of shelter. He remains in the firing line during the whole action; or should it occur to him that he could not exist there in battle, he retires at the utmost to some point between the skirmishers and the nearest support, from which post he issues orders and makes signals. Should, however, a movement of any sort become necessary, a flank attack or a re-enforcement, he is certain to ride to the place and see to it himself. You may be especially sure that he will do this if a mistake has been made, an order misunderstood, a wrong

* I have known excellent practice in this way given at our own brigade and battalion drills when "changes of positions" are made.—Tr.

mode of firing used, or, in short, if anything has been done contrary to his wishes. If he met his deserts he would be put *hors de combat* by an umpire a hundred times an hour. He goes everywhere except to the one point where if on actual service he would have remained the whole time, namely, with the company kept back as his last reserve, and with which he should show himself for the first time in the fighting line, unless he wishes to let his battalion get out of hand sooner than it need. Such unreal scenes from life in the drill-field create very false impressions upon those who have not seen war, for they are naturally led to suppose that such things occur in action; and when they find how unlike the realities of war are to their peace experience many of them get bewildered. And, again, the private soldier, who has been always accustomed to see the major* well to the front at drill, is apt to make unflattering remarks when this gentleman betakes himself to his reserve company as soon as the bullets begin to whistle; and the consequence of this is that field officers, to avoid such remarks, make a practice, at any rate at their first battle, of riding to the same points which they frequented when under fire of blank cartridge. A general in high position and a veteran of the old wars, however, said, in 1850, when criticising a maneuver and remarking upon unrealities of this kind with characteristic irony, he was sure that the first ball cartridge would set things right. But he was mistaken. At St. Privat mounted officers rode just where they had been in the habit of riding in peace time, the consequence of which was that at the end of that day only a few of the field officers and adjutants of the infantry of the Guard Corps were fit for duty, most of them being killed or wounded. Very honorable to them, indeed, but quite unnecessary, and most damaging to the interests of the service and of our country. When we discuss this question quietly it appears as clear as possible, and one only wonders how such unrealities can be tolerated. But there must be good reason for their general occurrence, and it is well worth while to seek for this reason if we wish to avoid the evils resulting from them. The first and foremost reason is that the battalion commander, when beginning to train his corps, cannot remain at the post which he would occupy in action, namely, with the rear company, because he finds occasion every moment to instruct and correct, being obliged in consequence to ride backwards and forwards; and if he returns to his proper place at any moment, something is sure to happen again in the fighting line which makes his presence there necessary. He therefore prefers remaining in front. In theory it would be better to pass over mistakes for the time, and to defer remarks to intervals of repose and to the end of the drill. But this is not practicable. There is always so much to criticise that he would have to interrupt the operations very frequently to call the officers together and give them long lectures, or else he would give way to the temptation of deferring the whole critique till next morning's parade, when he would find that by the end of his lec-

* Major commanding the battalion.—Tr.

ture the whole time available for drill was over, and that he had to dismiss the men to their dinners—a scene which I once myself witnessed. Moreover, a few words on the spot at the very moment have much greater effect, and are much more instructive than the most complete and exhaustive dissertation given some time after. Besides which, the battalion commander must be near the fighting line if he wishes to notice and remark upon all mistakes, for he cannot from his proper battle-post near the reserve hear wrong words of command, should such be given, as to the mode of firing, nor can he see whether proper aim is taken. The battalion commander must, therefore, necessarily place himself, on the first day of "battle practice," where he would not be able to remain in action, and this afterwards becomes a habit with him. The only occasion on which he might place himself where he should be according to the rules of war is the day of inspection; but it is too much to expect of a man that he should all at once, for that one day, give up what has become a fixed habit, and still more that he should get his battalion to adapt itself all at once to a new mechanism of command just when he wants to show it off to the best advantage, and, if possible, to avoid all mistakes. You may, perhaps, suggest that the commander might well, during the first elementary period of training, go about from place to place as he wishes, but that during the second period, when he comes to "battle practice," he should always remain where he would be in action. A very good idea, but hardly practicable. The period allowed for battalion training is so short that the commanding officer is glad if he can find time to practice even once in the course of the period each movement included in the Field Exercise Book, so that he is unable to divide the days which are allowed him into two periods, the former devoted to elementary, the latter to applied tactics. For during the three weeks allotted to battalion training, if he gets—after making allowance for Sundays, holidays, garrison guards, and fatigues—ten full working days, he may consider himself fortunate. Any commanding officer who has tried to work out the plan suggested has arrived at the outside at getting two days for real "battle practice," namely, the inspection day and that preceding it. Thus, he was naturally led to rehearse on the day before the inspection the exact movements which he intended to perform at the latter, so that the inspection was degraded into a mere theatrical display, a sort of military ballet, thus rendering the work of both days worthless for the purpose of battle training.

The inclination of the battalion commander to be everywhere himself and to see to everything himself is increased by a fact which is easily intelligible, namely, that the inspecting officer makes him responsible for every error which may be committed. "Just look, major, how that company is formed;" or, "See! the skirmishers of that company are advancing at the double; that is all wrong." After one or two such remarks from the general you will see the major galloping from *Zug* to *Zug* to prevent a repetition of the mistake. In consequence many

a battalion commander restricts himself to practicing from paragraphs 77 to 98 of the Field Exercise Book, and rarely soars into the higher regions of tactics treated of in Part IV.* If able to perform the various evolutions described in the paragraphs mentioned with satisfactory precision, the battalion is sure to make a good impression, and some imperfections in rendering the contents of Part IV will be condoned. This, however, means a return to stiffness and to mass formations, which are out of keeping with the present fire-arms, and can only lead to massive losses. I have often heard the habit of "working a corps up" for its inspection bitterly condemned; but if blame was ever ill-deserved it is in this case, for the strength of an army depends upon its power of obtaining an object at the will of one man, that is to say, it depends upon obedience and discipline; not that *formal* obedience which consists in merely doing what you are told and in awaiting orders, but that *active* obedience which leads a man to discover and anticipate the wishes of his superiors. The officer, therefore, who endeavors to present his corps before the inspecting officer in a condition such as he knows will be pleasing to him is not necessarily a time-server, but one who acts in that true spirit of obedience which has made our army great. I myself have been affected in a remarkable way by the prevailing inclination on the part of commanders to see to everything themselves. I believe I told you once before how, when a single battalion was engaged in a reconnoitering skirmish, the divisional, brigade, regimental, and battalion commanders, with their several staffs and accompanied by a reigning German prince, were all in the foremost line of skirmishers. Accustomed as those gentlemen were at all inspections to see to everything themselves, and looking upon battle merely as a sort of first-class inspection, they behaved just as they would at a peace maneuver. On another occasion a division in close formation was advancing on some enterprise against the enemy. The divisional general, as well as the commanders of the leading brigade, regiment, and battalion, were riding just in rear of the foremost troops. The first man wounded was a mounted orderly, who was struck by a bullet in the breast, and fell from his horse just behind the general. Not to mention the disproportionate number of casualties amongst superior officers produced by this practice, together with the uncertainty in transmission of orders arising from it, we may notice another bad result. To each man is allotted by nature a certain portion of bodily

* These paragraphs form the fourteenth chapter, "Formation of the battalion in two ranks (battle formation)," which treats almost entirely of movements in close order, column formations, deployments, &c., three of these paragraphs only being devoted to the extension of skirmishers from line and column. Part IV is entirely confined to "battle practice" (*Gefechtsübung*), comprising two chapters, one of which treats of the training of the men individually and collectively for fighting in extended order, also of the part played therein by officers and non-commissioned officers, whilst the other explains the action of the battalion in battle, the general use of skirmishers and of company columns.—Tr.

and nervous power. If you try your bodily strength prematurely, before the actual necessity for doing so arises, you run the risk of finding it fail just when it is most needed. The same thing applies to the nerves. No one is insensible to danger. Strength of nerve alone enables a man to overcome his apprehensions. The superior officer who goes into the fighting line sooner than he need, runs the risk of finding his nerve fail him at the critical moment. This does not produce a sudden outbreak of cowardice—by no means. Shakiness of nerve does not act in so straightforward a manner, but works upon a man surreptitiously by suggesting to him strategical and tactical caution, by proving to him that according to all the rules of art he is bound to temporize, to remain on the defensive, to break off the engagement, or to do whatever the fine scientific term for the thing may be. For instance, a divisional general who has been from sunrise till midday in the foremost line of skirmishers, has heard the bullets whistling about his head for five or six hours, whilst the advanced guard was driving back the enemy's outposts, and has at last arrived in front of the main position strongly occupied by an enemy, who perhaps must needs do his best to hold it because he cannot see his way to retiring from it in safety—a general, I say, thus circumstanced will be very apt to think that his troops have done enough for the day, being himself tired by having been six hours under fire; yet all except the leading battalions are perfectly fresh. So he decides to put off the attack till next day, because then the other divisions will be forwarder, throws out his outposts, and lets his people rest. The enemy is for a second time surprised, but on this occasion agreeably so, for he now has an opportunity of retiring without loss, and escapes from the impending catastrophe. Now, if this general had taken it easier himself, had he not used himself up in the six hours' skirmish, he would, at the very moment when he stopped the attack, have come, for the first time on that day, to the front, fresh in body and mind, would have found that nothing serious had hitherto been done, and would have ordered a general attack. Thus, untimely excess of zeal, which leads an officer to look to the smallest details himself, may produce subsequent want of energy; premature gallantry may be the cause of eventual indecision and want of enterprise. These mistakes were not committed by our generals in action during the latter part of the French war, which lasted long enough for them to see their errors, and for some time after that war these mistakes were also banished from peace practice. But little by little these bad habits crept in again, and now bid fair to become more and more firmly rooted the longer peace lasts, not only because the requirements of peace service, culminating as they do in the inspection, confirm these habits, but also because the experience gained in the field dies away.*

* There is no European army in which these bad habits arising from continued peace have been more prevalent than in our own, I believe; yet one part or other of our army is almost always engaged in warfare of some sort, which cannot be said of any other European army.—Tr.

"War experience has only a restricted value," once remarked a military bookworm, to the amusement of his friends. But to a certain extent he was right. The officer of each rank gains experience in war only for the performance of his own duty and of that appertaining to the next higher grade. Thus, the captain learns what concerns the command of a company and of a battalion, but not how to handle a regiment or brigade. The only exception is in the case of young officers, who keep their eyes open whilst acting as aids-de-camp to some general in high command.

Now, however, after thirteen years of peace, promotion has gone on a good deal, and I cannot help wishing, for the sake of the younger generation, that there may be soon no more battalion commanders in existence who took part in the last war as subalterns in companies, or how can you expect a lieutenant, whilst commanding a *Zug* of skirmishers in battle, to gain the experience which will teach him how to lead a battalion in action? When he has to do it he will act as he would do at an inspection. As we have pointed out the tendency which exists on the part of battalion commanders for unpractical methods of command, for stiffness of formation, for putting themselves in the wrong place, for a system of direction which is impracticable on service, the question naturally arises, "Where to find a remedy for these evils?"

* * * * * * *

That they have been recognized by others, and, if not acknowledged in so many words, that their existence has been fully admitted, is evident from the many attempts made to find a remedy for them. Up to the middle of the present century the practice at battalion exercises was to confine yourself to elementary tactics in stiff formation, in fact to such exercises as marching to a flank, wheeling, manual exercise, column formation, deployments, direct and oblique movements. Skirmishers were but little used, being only thrown out from the whole battalion. The great point of all was the march past. But the old fashion was modified about the middle of the century, and battalion commanders were allowed at inspection, when the drill was over, to go through some "battle practice," including evolutions which they themselves had thought out and which were not "in the book." This practice made field officers reflect, and produced much that was novel and good. Whoever brought out anything new, even if it were not quite practical, got the reputation of being at least a man who thought for himself. This naturally led to excess. Every commanding officer wished to invent something, and made a secret of his invention up to the inspection of the battalion, tinkering at it throughout the year, so as to be able to show off something even surpassing his *chef-d'œuvre* of the year before. Then many wonderful sights were seen, of which, perhaps, the least startling was the chronic appearance of a river on the drill-ground, indicated by some men, and probably on an eminence.

These eccentric performances soon got the nickname of "Turks' maneuvers," or, briefly, "Turks," on account of the disorder which accompanied them. But as every battalion commander thought himself bound to show off his own special "Turk" before the inspecting officer, the authority of the Field Exercise Book became much impaired, because every one began to think that once on active service you might and ought to shake yourself free from all its shackles. Precision in drill began to fall off and discipline to suffer. The old drill instructor of the day gave rather an original turn to the acknowledgment of this evil when he remarked, "The march past, gentlemen, is like painting on glass—an art which has been lost." After some years the higher powers interfered to check the prevailing tendency towards a departure from regulation and towards inventions such as alluded to, insisting firmly upon commanding officers only practicing movements to be found in the book if they chose to indulge in their "Turks."

The company column, in combination with fighting in extended order, became more and more widely used, in accordance with supplementary instructions issued. After our war experiences, especially that gained in 1870–'71, permission was again given to bring tactical suggestions forward on the drill ground in a practical way.

These were principally attempts at solving the problem how best to advance to attack over open ground under fire. Once again the most wonderful formations were witnessed. One saw at times files of men sown broadcast over a whole drill-ground some 300 paces square, and one could not help feeling that the practice of utter dislocation was here raised to a system.* One saw battalions, after running till the men became breathless and fell from exhaustion, commence firing while still in a state of feverish excitement, so that one might fairly doubt whether a shot from them would tell. One even saw dense clouds of skirmishers firing as they ran, without aiming and with the rifle held horizontally to the hip. An endless mass of literature, full of tactical suggestions, troubled the brains of thinking officers, who at length became utterly puzzled in distinguishing what they had only read in pamphlets from what was really in "the book." The new edition of that work which appeared in March, 1876, put an end to this state of uncertainty. The fourth and fifth parts of this work are sufficient for all service requirements, and admit of infantry being always handled according to the military situation and to the character of the ground, the rules laid down being of the most elastic nature.

What, then, is to prevent our relapsing into stiffness, and placing our whole reliance on the chapters of Part III? The real remedy lies in the nature of the inspection, for a corps will certainly be trained so as to fit it for the sort of inspection it will have to undergo. In our army, at least, discipline is, thank Heaven, still so good that such will be the case. The inspection of a battalion is generally conducted so that

* Can some adventurous German have tried the four-deep system of attack?—Tr.

after the parade and march past a portion of the time is devoted to Part III and the remainder to Part IV of the book. The inspecting officer generally states which evolutions out of the former part he wishes to see, afterwards allowing the commanding officer to give a representation of a combat in accordance with the rules laid down in the latter part, or else he gives him leave to do what he likes out of both parts. The consequence of this is that during the second part of the performance, usually called "battle practice," the commanding officer has to show how he thinks a battalion should be brought into action. He therefore tries his best to prevent each individual skirmisher from doing anything but what he wishes. He will have rehearsed his field-day beforehand with his captains, dividing it exactly into periods, and he will try to prevent the slightest departure from his fore-arranged plan, lest the whole programme should be spoilt. But this preparatory rehearsal converts the whole thing into a theatrical display, which differs essentially from reality on account of the little knowledge any one has at the commencement of a real action of what nature will be its later phases, and, further, because in his endeavors to prevent all departure from his scheme the commanding officer is obliged to go to many points where he could not show himself on actual service. In both ways the initiative of inferior officers is crippled, and the practice is therefore to be condemned, though there is this much to be said for it, that it gives a commanding officer the power of showing exactly how he wishes his battalion to act in battle, in order to do which it is advisable to prevent all mistakes and false movements from being made. Another result of leaving the practice of "battle exercises" entirely to the commanding officer's discretion is that he often plunges into the most scientific tactics mixed up with strategy, and that, in consequence of the comparatively slow rate at which infantry can move, much time is taken and the strength of the men is sorely tried. This applies particularly to the tendency, which is in principle fully justified, of representing turning movements, for if a commanding officer wishes to avoid exposing the company told off to turn the enemy's flank to a crushing fire whilst making its flank movement, he must detach it whilst still beyond effective range that is to say, if the field of exercise is extensive enough, at 2,000 meters distance from the enemy; so that, as the company will have in its turning movement to go over more ground than this, and as its advance will be delayed by having to move forward by successive rushes, and by at least keeping up some amount of skirmishing fire, this one operation will not take less than half an hour. Moreover, the flank attack hardly ever answers. Either it comes too late, that is to say, after the frontal attack is over, or it is made too soon, or else one of the attacks, either that in front or that on the flank, is held in check so long by the enemy's fire that it must surely fail; for infantry cannot, like cavalry, make up for loss of time by any considerable increase in speed. Only one form of attack combined with a flanking

movement can be shown at peace practice without a great expenditure of time, which form was indeed ordered by one of our senior generals in high position. He used to place, from the very first, the skirmishers of the company intended to make the turning movement at right angles to the skirmishers attacking in front, and order them to move on the enemy at once in this formation. This obliged the skirmishers of the flanking company to file off sideways, with the company column in support on their outer flank. How the officer in question could flatter himself that any enemy would submit to be outflanked in this fashion is the more incomprehensible to me that the real enemies whom I have seen him attack never gave him any grounds for expecting such magnanimity. I certainly act against the saying "*De mortuis nil nisi bonum*" in telling you this anecdote, but I wished to give you an example of the excesses to which inventiveness may proceed when Clausewitz's saying, "In war all is simple, but the simple is difficult," is forgotten. When I commanded a division I did my best to remedy the evils alluded to (as far as the sphere of my influence admitted of my doing so) by the nature of my inspections. After some failures, owing to the zeal of commanding officers, who, in their anxiety to meet my wishes, went beyond the mark aimed at, I arrived at a system which approved itself during a seven years' trial. I am satisfied by the experience then gained that my commanding officers were perfectly competent to train their battalions properly, and that nothing but the style of previous inspections had prevented them from doing so.

Still more, as soon as my views were thoroughly understood I had the pleasure to see my own tactical ideas improved upon by these gentlemen. This was only natural, for they had served longer in the infantry than I, and had practical war experience either as field officers or as captains. So I learned a lesson from my subordinates. Now I will tell you how I carried on my inspections, because I think you will therein find the solution of the problem before us. * * * My inspection of a battalion commenced, according to the usual custom, with a parade and a march past. I attach great importance to these matters, because when you see men drawn up on parade you judge by their position in the ranks, and when you see them march past by the way in which they step, of the manner in which they have been individually drilled. A comparison of the remarks which I made when present at recruit and company drills, with what I observed when troops marched past, taught me this. Again, nothing shows so clearly the sort of treatment which men habitually receive as the expression of their faces when drawn up on parade for inspection. It is true that appearances may be deceptive, according to whether or not a battalion has been standing long on parade beforehand. To guard against unnecessary fatigue from this cause, I made battalions await my coming with piled arms, only allowing them to form up after my arrival on the ground. This gave me, too, an opportunity of seeing how things were done. It

took a little more of my time, but it saved the men. Before proceeding further I will remark that at the end of every inspection I made the battalions march past in a different formation from that shown at starting. I treated this second march past as a compliment to the battalion, as a solemn conclusion to the proceedings, taking occasion while it was going on to speak to the men in an encouraging manner. I should only have omitted the second march past when I had reason to be thoroughly dissatisfied with a battalion, but this was never once the case, for I always found at least zeal and good will. Another advantage of the parade and march past is that they are good tests of the degree in which the drill regulations are attended to. After the first march past I allowed the commanding officer from half to three-quarters of an hour for movements explained in Part III of the Field Exercise Book, omitting the sixteenth chapter, which was reserved for the last, when the battalion was thoroughly shaken up by field movements.*

In the course of three-quarters of an hour one could form a pretty good opinion of the manner in which the orders regulating movements executed at the commanding officer's word of command were carried out. After a short interval of repose I proceeded to "battle practice," conducting this myself, giving the commanding officer quite simple tasks to work out, the enemy's position being generally marked by a couple of flags. All had to be done, as far as regards the communication of orders and the mode of executing them, as it would be on service. I allowed no movement nor word of command except those found in the Field Exercise Book. Captains received no instructions before the operations commenced, except such as were requisite to make them understand the supposed situation and the meaning of the flags, or such as they might receive under similar circumstances in actual warfare. The commanding officer was bound to remain where he would be in a real fight. If the troops made a false move after being so completely in action that were the case one of actual service no counter-order could reach them, no such order was allowed to be sent, and the commanding officer had to modify his measures to suit the occurrence. All orders as to mode of firing (whether group volleys, the combined use of two or three sights at the long ranges, a limit to the number of rounds fired consecutively, with intervals of cessation, individual or rapid independent fire), and, again, as to formation (extended order, line, column, and what sort of column), together with such details as lying down, doubling up, were left to the company officers and non-commissioned officers, who were alone responsible for those matters, and whose action naturally gave rise to critical remarks in some cases. By reserving to myself the power of assigning the tactical task I was able to banish unnatural at-

* The sixteenth chapter is upon rallying the battalion after it has been broken up and dispersed in the course of an operation. This is done in the same manner as with us, only the rule is that, unless otherwise ordered, the battalion forms up in double column of *Züge* at quarter distance.—Tr.

tempts at strategy from the operations; moreover, I could prevent an undue amount of time being taken up by any one movement; and in case any operation appeared likely during its progress to last too long, for convenience I could cut it short by interposing some afterthought, such as a cavalry charge, or a change from offensive to defensive, and such like. In course of time, by thinking the matter well over beforehand, I arrived, thanks to constant practice, at putting a battalion through three or four tactical problems in the course of from three-quarters of an hour to an hour.

Supposing, then, from three to five battalions to be quartered at the same station, from twelve to twenty battle scenes were represented annually before the same field officers and captains, and I thus had the opportunity of going through the greater part of Part IV of our book.*

To make the matter clear I will give a number of these tactical problems by way of example:

1. A single battalion makes a frontal attack upon a certain post. To shorten the operation, sometimes only the first 500 meters, at others the last 500 meters, of the attack was represented.

2. A single battalion defends a post (redoubt, shelter-trench, wood).

3. A battalion on the march, acting as advanced guard, surprises the enemy, and

4. Is surprised by him.

5. A battalion being directed on the enemy's flank succeeds in approaching to within 300 meters of him, in fighting formation, without being detected.

6. The battalion is supposed to be fighting in brigade, either in the center or on a flank, in first or in second line.

7. A battalion which has been kept back as a last reserve in rear of the center of a brigade is ordered to decide at any cost a skirmishing fight which has been conducted with varying success for some time, and to carry forward with it the troops already in the fighting line to take part in a general attack.

8. The enemy having received re-enforcements or making flank attacks, the battalion is forced to change from offensive to defensive, or *vice versa.*

These eight cases produce at least twenty different combinations, which may be varied greatly according to the nature of the ground. Additional variety may be obtained by supposing a cavalry charge, either on the part of friend or foe, to take place in the middle of the operation, or by making the commanding officer non-effective. I introduced the latter supposition either when a commanding officer got under effective fire prematurely, or when one of the senior captains in the regiment happened to be on parade and I wished to give him a chance

* In Germany all field officers and captains in a garrison off duty are expected to be present as spectators at inspections of the corps they do not themselves belong to.—Tr.

of showing himself competent to command a battalion. Conducted in this manner the inspection of a battalion in field-work took about two and a half hours, so that no more than two battalions could be inspected daily, as no inspecting officer could keep his attention fixed on details for a longer time than five hours. As five of the twelve battalions of my division were quartered at one station, three at a second, while of the other four two were together and the remaining two at different places, I was able to see all my battalions in nine days, including one intervening Sunday. It was impossible to spend more time over details of drill without prolonging the period devoted to inspections at the expense of the regular training, my afternoons being, besides, taken up with other matters connected with the inspection, and also with my journeys from station to station. You may, perhaps, be surprised that all divisional generals should not adopt my system of inspection, if it is really a practical one. Their reason for not doing so is because the most of them endeavor to exercise their battalions and to arrange matters according to the wishes of the general commanding the army corps, who, however, cannot spend so much time over a battalion; indeed, he cannot devote more than one hour on an average to each, and must needs allow the commanding officer to show him what movements he chooses to select. * * * The system of inspection here proposed is quite sufficient to obtain a good idea of a commanding officer's capacity, for he, knowing the style of inspection to be expected, is induced to train his battalion in such a way that his subordinates will gain the habit of initiative necessary to them in battle, whilst he himself loses the habit of interfering on all occasions, a course which is out of place, and, indeed, impracticable on service, but into which he has been naturally led whilst schooling his men in elementary tactics. The general should conduct his inspection in a genial manner, for the uncertainty prevailing as to the movements which an officer will be required to perform, the feeling of being under probation, and that the result may affect his future prospects, will often produce an anxiety and a nervousness which may be fatal to clearness of mind, and produce the complaint commonly known as "inspection fever," a complaint which must be got rid of before the patient's capacity can be fairly gauged. A timely joke may often act as a remedy. I remember the case of a very excitable field officer who was in general quite capable and steady, but who at the commencement of an inspection was so much under the influence of "inspection fever" that he gave the first simple words of command for marching past all wrong and with a shaky voice. I rode up to him and remarked quietly, "Major, I have so often seen your battalion drill capitally under your command that if I were in your place I should not suffer from fever." He looked hard at me, smiled, and from that moment handled his battalion in a faultless manner.

Flank and frontal attacks.

There is some truth in the assertion that one can no longer make a frontal attack on a position, a village, and so forth, across an open plain or up a glacis-like slope. The proper course in such cases is to occupy an enemy thus posted by artillery fire, and to make your attack on some other part of the position, where you can approach it under cover, or else to turn the enemy's flank. This is all very well if it be feasible, which is not, however, always the case. It may happen that a body of infantry having other troops on its right and left, with more favorable ground in front of them, must in order to get at the enemy cross a perfectly open plain. Can the commander of this body, when ordered to advance, say, "I cannot go on; I must disobey my orders"? Not so; the only question for him is, in what mode should he advance so as to expose his people as little as possible to fire? The Field Exercise Book gives no clear prescription for this, particularly when the open space is exposed to a combination of shell, shrapnel, case, and rifle fire. We must, therefore, draw upon our war experience if we wish to form a clear conception of the manner in which we should act under such circumstances. At the battle of St. Privat the infantry of the Guard Corps left the cover afforded by the depression which runs from north to southwestward of Ste. Marie, and advanced to the attack of the French position. Being still formed in battalion columns, it was exposed at once unexpectedly to a most violent rifle fire, at a range previously thought ineffective. It nevertheless kept on advancing, but the fearful and increasing losses which it suffered completely broke up its tactical formation, so that when brought to a standstill by this tremendous fire, the foremost troops were merely disjointed groups of men, who lay down at from 500 to 600 paces from the enemy and returned his fire. The advanced infantry of the Twelfth Army Corps prolonged the firing line of the Guards to the left. The enemy's infantry, which had been pushed forwards down the open slope in front, withdrew upwards into the position, and was also driven back from the brow of the hill between St. Privat and Amanvillers. Whilst a part of our artillery now established itself on the ground thus relinquished, the other batteries moved up closer to the fighting line of the infantry, and supported it by tremendous fire, at so short a range that every shell told. When the left wing of the Twelfth Army Corps advanced from Roncourt on St. Privat, the assailants formed almost a semicircle round the latter village. One of our infantry generals, who was directing the operations from the foremost line of skirmishers, remarked that the fire of the defenders from the loop-holed walls of the gardens surrounding the village was almost silenced, and said to one of his aids-de-camp, "Now, then, on we go, or we shall never get into the place." The aids-de-camp were on the point of riding off to communicate the general's orders, when the whole front line of skirmishers, both of the Guards and of the Twelfth Army

Corps, sprang up as if seized by one and the same impulse, and rushed into the village with cheers. This last rush and this capture of the extended circuit of outer walls cost but few lives, the defenders having apparently retired into the interior of the village; but once among the houses a protracted hand-to-hand struggle took place, as the French reserves were then, as was supposed, in the act of moving forward to replace the former defenders of the garden walls who had retired. As far as I could judge from my position with the artillery on the right of St. Privat, this supposition was correct. The day after the battle, which lasted till after dark, I found many of our dead and wounded foot soldiers scattered over the whole space between Ste. Marie and St. Privat, these symptoms of deadly combat becoming more and more pronounced the nearer you approached the latter place, till within 500 or 600 paces of it, when the bodies lay close together in rows forming a complete semicircle round it; but nearer to it there were but few. Some of my infantry comrades argued from this that the French rifle was sighted too high, and thus fired over our men's heads at close quarters. But the real reason was rather that our soldiers suffered most on the ground where they halted the longest to return the enemy's fire, which had almost entirely ceased when the assailants chose that favorable moment to make the last rush. I have before now related to you an episode of the battle of Sedan, which shows how unattackable infantry is in front if unshaken, if it fires steadily, and has plenty of ammunition. It is therefore necessary to shake it before you come within its effective range, either by threatening a flank or by fire. We profited at Sedan by our previous experience, showing this by the way in which we made our attacks. On that day the infantry of the Guard, though not the same battalions which attacked St. Privat, took the Bois de la Garonne, a fortnight after the last-named action. I was, with ninety guns of the Guard artillery, in position to the east of Givonne, along the brow of the hill, nearly as far as Daigny. The enemy's artillery fire was completely silenced, and General v. Pape determined to carry the Bois de la Garonne. He therefore settled with me that after I had shelled the wood for a certain time he should, at an hour specified (we compared watches so as to be in agreement), move forward out of Givonne. I was then to cease firing, lest I should endanger his men. We conformed exactly to this arrangement.

The infantry of the Guard (Jäger and Fusiliers) climbed the heights and occupied the borders of the wood, after my ninety guns had kept up a murderous fire upon it at short range (1,200 to 1,600 paces). More than 10,000 unwounded prisoners were here taken, the regiments engaged in the attack having lost in the whole battle of Sedan only 12 officers and 216 men,* of whom but a small portion can have fallen in

* According to the Prussian Staff History, 11,000 prisoners were secured on this occasion, a good many others having been taken but having afterwards escaped. A large proportion of these men had surrendered without firing a shot. A good

the affair just described, seeing that the same regiments had already taken the village of Givonne, and that they afterwards lost many men when fighting inside the wood.

At St. Privat the infantry of the Guard lost 8,000 men, but the fighting at the Bois de la Garonne cannot be fairly compared with that at St. Privat, because the deep valley of Givonne enabled the assailants to arrive within a few hundred paces of the wood under cover, whilst a regular glacis-like slope extended for more than an English mile in front of St. Privat. Another attack on a village, of which I was also an eye-witness, bore more resemblance to that on St. Privat, namely, the storming of Le Bourget, on 30th October, 1870. The left column, composed of the Alexander Regiment and the Schützen Battalion of the Guard, advanced from Le Blanc Mesnil on the village, accompanied by two batteries, which prepared the assault, taking post at last pretty close to the enemy. Our artillery and infantry fire drove the defenders from the outskirts, which the skirmishing line reached, particularly at the southern end, almost without loss. The fighting from house to house, however, cost many lives. The attack made by the right column from Daigny, near Le Blanc Mesnil, was still more instructive in respect of the formation employed, for here the infantry was unsupported by artillery, the flanking fire kept up by the horse battery on the west end of the village, from its position north of Pont Iblon, having doubtless but little effect on account of the distance. The battalion of the Franz regiment had here to cross open around over a space of 2,000 paces. The commander of this regiment had trained it beforehand for an attack of this kind, and now made it advance in a formation previously well practiced. The fighting line was formed of two entire companies, extended into a dense line of skirmishers, divided into two wings, which moved forward alternately at a run for 300 paces. After every rush, each wing halted to lie down for the men to take breath, getting some cover amongst the high potato plants, whilst the other wing ran on. As soon as they got near enough for the needle-gun to tell, the halted wing kept up a heavy fire upon the outskirts of the village. Even now, whilst writing this description, I can recall the joy with which we spectators, from our look-out place, witnessed this well-planned and well-executed attack. The best of it was that these battalions, as I was assured by their commander, met with hardly any loss till they got into the village; it was only in the stubborn fight inside it that they suffered.*

---

many guns and an eagle were also captured. The attacking force consisted, however, of a larger force apparently than stated by Prince Hohenlohe, namely, besides the battalions mentioned by him, of the Fourth Regiment of the Guard and of a good many detachments from the Twelfth (Saxon) Army Corps.—Tr.

* According to Dr. Engel's official account, the Alexander Regiment had altogether on that day 45 casualties, the Schützen of the Guard 36, and the Franz Regiment 56.—Tr.

It is only fair, however, to remark that the defenders of Le Bourget were not such well-trained troops as those of St. Privat, that the position of the former village was not so commanding as that of the latter, and that the attack of the Franz Regiment took the French in flank. I can well realize, if I imagine myself in the position of the defenders, the trouble which this unwonted form of attack must have caused them. As soon as the French saw the first skirmishers they naturally opened fire upon them. All of a sudden, however, these same skirmishers disappeared from view amongst the potatoes.

Whether or when they remarked the rush of the other wing is doubtful, for the smoke of their own heavy fire would hang about the loopholes through which they aimed. The line of defense being, moreover, not everywhere directed straight on the assailants, the defenders could not get their sights at once on the fresh wave of enemies, and by the time they had done so the latter would have run their course, and would, in their turn, have been down amongst the potatoes, the smoke concealing this fact from the French, and the other wing meanwhile coming on. Thus the two wings of German skirmishers got near enough to use their rifles with effect, and from that moment the halted wing poured its fire into the village, thus drawing upon itself that of the defenders, and enabling the advancing wing to make a further rush with comparative impunity. When I put myself in the place of the Frenchmen it seems to me quite natural that they, under the influence of the surprise caused by this rush across the open, soon ending with a cheer and a charge, should have evacuated the outskirts of the village as they did. Without doubt, the garrison of Le Bourget was on that day composed of troops of unequal value, consisting as it did of marines and regular infantry, mixed with *moblots* and *franctireurs de la presse*. All the same, they fought very hard afterwards amongst the houses. I am unable to say what troops were directly opposed to the Franz Regiment. With regard to the formation of the assailants, I must add that the two échelons in rear of the skirmishers, the second of which was further subdivided into two échelons, marched, as far as I could see, in quick time and in open line, so as not to expose too dense a formation to the ravages of unaimed fire. They looked thus like thick lines of skirmishers. Now, although the attack on this side of Le Bourget succeeded without any material assistance from artillery, I think that, as a matter of principle, it will be conceded that a frontal attack across open ground should not be attempted without being preceded by a heavy fire of artillery.

The German official history of the war of 1870–'71 gives, at page 668 of Part II, a brief notice of an attack on a village carried out just as it should be, and a detailed account of the same occurrence appeared in the "Jahrbücher für Armee und Marine," in the number for March, 1872.* According to these authorities, General v. Treskow ordered a

* On the 10th December, 1870.—Tr.

heavy artillery fire to be directed on Villejouan during the battle of Beaugency-Cravant, because that village threatened his right flank, and he did not choose to leave it in the enemy's possession for the coming night.

Two batteries unlimbered against the village and shelled it for a whole hour, and under this fire a part of the defenders appear to have retired within the place. Our infantry (the Fusilier Battalion, Seventy-sixth Regiment) was directed to approach in such a manner as not to mask the fire of the batteries, and they crept up to within 200 paces without firing a shot, but then came under fire themselves. Upon this they rushed, with cheers, upon the village. The few defenders still remaining in the outskirts were overpowered, and, indeed, the greater part of the garrison must have fled, as the battalion lost only 4 officers and 88 men, including those who fell during the fighting inside the place, which lasted from noon till evening.

The victory of the fusiliers was due in great measure to surprise. The battalion was formed in two échelons, the foremost of which was composed of Nos. 10 and 11 companies, each of which had extended two *Züge* as skirmishers, Nos. 9 and 12 companies following as second échelon, at first together in rear of the center, but when the leading companies broke into the east side of the village taking ground to the right, and making their way in on the north side. We shall have to act, as a general rule, in a similar manner in future attacks of this kind, only that, having now as far-ranging a rifle as our enemies, we shall be able to unite the effective fire of our skirmishers with that of the artillery from the first, if the latter is not sufficient of itself to frighten the defenders from the outskirts of the village, so that our task will be more easy of execution.

When once the enemy is quite driven away from the outskirts, it does not matter in what formation infantry advances; but if the artillery fire has not succeeded either in annihilating or in frightening away the defenders, the co-operation of the infantry will be necessary. The success of the Franz Regiment at Le Bourget teaches us in what formation infantry can and must advance up to the point whence it will itself open fire, namely, in a strong line of skirmishers. Supports had best follow deployed, and there is nothing in our Field Exercise Book which forbids the use of the open line, that is, with intervals of a man's breadth between files, a formation which should be adopted if the enemy's infantry fire is still effective, in order not to present too good a target for chance shots. The second échelon may well move in close line until pushed forward to join in the assault. I only propose this formation for open and level ground. When the least cover is to be found, each unit will of course form a column the best adapted to take advantage of it. The inclination for flanking movements leads to a great extension of the front line of battle. This inclination is fully justified. The first combat in the open field of which I was witness, and which took

place before Schleswig, on February 3, 1864, gave striking proof of this fact. The Austrian brigade Gondrecourt attacked the enemy in front with unsurpassable valor, carrying by assault Ober-Selk and the Königsberg, but having a fearful number of men killed and wounded in doing so. Two battalions were directed on the village of Jagel, and engaged in front of it in a serious action, making but little progress, particularly after Colonel Benedek was carried to the rear badly wounded. The assailants had just found their way into Jagel, when a company of the Augusta Regiment (Prussian), marching up by another road, appeared upon the defenders' right flank. This had quite a magical effect upon the enemy, who, fearing to be surrounded, evacuated the whole village and the neighboring inclosures, with great loss in killed, wounded, and prisoners, for the Prussian company had suddenly opened a rapid independent fire upon his right flank, and, profiting by his confusion, had rushed into the village. Only one man of this company was wounded. A few days afterward the Belgium Regiment, belonging to the other Austrian brigade, together with the Ninth Jäger Battalion, attacked the position of Oversee, which was strong in front. Again the Austrians suffered terrible loss, particularly in crossing the frozen lake and in advancing against the place. It is doubtful whether, notwithstanding their wonderful bravery, they would have carried the position had not two Jäger companies turned the right flank, whilst two battalions of the Hessen Regiment came up afterward, threatening the left flank, upon which the Danes evacuated the position and retired. But there must be no mistake about this, that a flanking movement such as that referred to can in general only be made successfully by altering the direction of your march, or by detaching a part of your force, when out of range and out of sight of the enemy. For if the movement is not a surprise, its effect will not be so great. Should such a course not be possible, we must at least try, by extending our front, to prolong it beyond that of the enemy, and thus to outflank him, after which the outer wing must wheel inwards and fall upon him. If, however, you attempt this sort of operation within sight and range of the enemy you will be exposing yourself to a flank attack whilst doing so, and will probably suffer severely. It would appear to be a comparatively easy matter to strike the enemy's flank when you are yourself occupying a good defensive position, with reserves écheloned behind your wings, thus favorably placed either to surprise a hostile detachment bent on turning your flank by taking it in flank, or, should the enemy only make a frontal attack, to advance and to wheel inwards, thus falling upon the flank of their assailants while they are already engaged with the troops in front of them.

Surprise, which is a necessary accompaniment of a flank attack, is facilitated by the fact that a defensive position is generally taken up on a ridge which conceals everything in rear of it. The attack and defense of positions in front of Metz and Paris furnish numerous examples of

sudden flank attacks of this kind being made by the defenders, that on the largest scale being the sally of the French infantry from Amanvillers against the artillery of our Ninth Army Corps, on the 18th August, 1870. ("Prussian Staff History," pp. 712–713.)*

To make the counter-stroke really effective, one should, when occupying a position, place as few infantry as possible along its front, and concentrate as powerful a force as you can in reserve behind both flanks. Since infantry have acquired the power of digging shelter-trenches in a very short time, we can now spare more men from the front attacked and place them in reserve. But when I speak of shelter-trenches I am reminded of a circumstance which has often roused my wrath at peace maneuvers. I don't know how it is, but notwithstanding the great dislike of the German soldier for burrowing in the ground and for throwing up defensive works, notwithstanding his great preference for offensive operations in war, if once the shelter-trench is there it seems to have a wonderful attraction for him. How often do we observe at a peace maneuver that far too many men rush at a trench to occupy it, and that at last they are packed up as close as possible together, sometimes even on the top of one another, so as to be much hindered in shooting. Besides which the trench is generally so narrow and shallow that the cover obtained from it is a complete illusion and the men's feet, to say the least, are completely exposed, being cocked up in the air behind them. If care is not taken to insist upon the trench being dug to a sufficient depth and width, the men will get a totally false idea of its defensive value. The same remark applies to the manner in which the men are allowed to crowd into it. I must, however, admit that many erroneous notions are nurtured at peace maneuvers in consequence of the absence of casualties, and we gain the habit of cramming too great a number of men into our fighting line when we bring up the supports, whereas in battle these same supports are only brought up to make good losses, and to provide against any reduction of fire, the enemy's bullets only too effectually preventing any excessive accumulation of men in our trenches. All the same, we should never allow them to be overcrowded even in sham fights, and when we wish to represent the operation of bringing up supports we should make them march up, fire a volley, and then go to the rear.

In order to keep up a proper fire from a shelter-trench, I reckon that each soldier, taking off his knapsack and placing it by his side, as he must do in order to get as his reserve ammunition at need, should have a clear front of two paces so as to be able to fire at his ease, that is to

* This took place at about 2 p. m. A battery of mitrailleuses had approached close to the left flank of the Prussian line of artillery, and had in a few minutes completely silenced the heavy field battery, killing or wounding forty-five of the men and a quantity of horses belonging to it. Suddenly a large body of infantry threw themselves upon the defenseless guns, four of which they captured, only, however, succeeding in carrying off two, which the Germans retook when Metz capitulated.—Tr.

say, with as good an aim as possible; therefore no trench should contain more than one man to each two paces of front. Consequently, 500 men would suffice for a length of 1,000 paces, and a battalion on the war strength of from 800 to 1,000 men would be sufficient to supply the garrison of a line of this extent, including the immediate supports placed close in rear. Suppose, then, a brigade to occupy a shelter-trench from 1,600 to 2,000 paces in length (nearly an English mile), I would divide the front into two sections, each of which would be assigned to one of the two regiments, one of its battalions forming the guard and support of its part of the trench, whilst the remaining two battalions are écheloned in reserve behind and overlapping the outer flank.

* * * * * * *

A flank attack tells with tenfold effect. I have often remarked this in war, not only on a large scale, as at Königgrätz, when we of the second army fell upon the flank of the Austrian fighting line, but also in the case of small bodies. For instance, at St. Privat, where we maintained for hours a heavy artillery fire against the troops occupying the positions of St. Privat–Amanvillers. The enemy had pushed forward some battalions, extended as skirmishers down the opposite slope. They inflicted such severe loss on my batteries that the commander of the army corps sent six companies in succession, which were mostly distributed by *Züge* in the intervals of the batteries, so as to prevent the enemy's skirmishers from running in upon the guns, as our men had done upon the Austrian line of artillery at Chlum–Nedelitz on the day of Königgrätz. But the French skirmishers remained at a distance of from 900 to 1,000 paces and continued to do us hurt, whilst our needle-gun could do but little against these scattered men at so long a range. Over and over again had the brave men of the Augusta Regiment wished to rush forward and free us from this annoyance; but as my orders were only to hold the enemy for the time, as, too, the infantry at the moment available was far inferior to the enemy in numbers, and would, had it advanced, have masked my batteries, which must, therefore, have ceased firing, I prevented this advance several times. Major v. R—— then suggested pushing forward a company to a hollow on the enemy's left. As this movement would not mask my fire, I sanctioned it. Hardly had the company commanded by Captain v. R—— opened fire from a point in prolongation of the enemy's line of skirmishers before they all jumped up and rushed right away up the slope. Then we discovered for the first time what large masses of infantry were hidden in the furrows, ready to pounce upon us. We estimated them at nine battalions in three lines, one behind the other. Our shells created great havoc amongst them as they ran up the slopes. As the general advance on St. Privat luckily took place directly after this episode, my batteries found the way clear before them, and were able to gallop forward to the height to our right of that village. Thus, the sudden flanking fire of one company caused the retreat of nine battalions.

Such flanking fire has a magical effect, principally because troops when suddenly assailed by it cannot help fearing that their retreat is threatened. But this effect will only be produced if the line of march leads directly upon the enemy's flank, or if the movement be favored by features of the ground unnoticed by the enemy. A body smaller than a company will rarely be able to execute an operation of this sort with good effect.

Infantry against cavalry.

A few words upon the action of infantry against cavalry. I might simply point to the events of 1866 and of 1870–'71, for our infantry was always victorious in those wars. It then gained the conviction that infantry cannot be beaten by cavalry as long as it is fearless, and this was proved, no matter in what formation it received the attack. Numberless episodes in the battles of Gitschin, Königgrätz, Wörth, Sedan, clearly demonstrate this, and need hardly be recalled to your memory. Should you indulge in a quiet laugh at my expense, and remind me that when writing about cavalry I asserted that it might even in these days gain advantages over infantry, and that it could not fairly be censured even for charging infantry still unbroken, remember, my good friend, that Prussian (German) cavalry will not have occasion to charge Prussian (German) infantry.*

Since the war of 1866 our infantry has quite given up forming square to receive cavalry.† Immediately after the first victory of the battalions of the Body Guard Regiment at Gitschin, which when deployed in line beat off the most energetic cavalry charges, the order to give up forming square was issued to the whole army, and during the entire war of 1870–'71 I do not think that there was a single instance of our infantry assuming that formation except in the case of the band of the Fifth Jäger Battalion at the battle of Sedan. From the material point of view I believe this to be accounted for by the fact that, in consequence of the long range of the infantry rifle, cavalry has to go a much longer way round than formerly if it wishes to attack infantry in flank, so that a line of infantry has plenty of time to change its front for the purpose of meeting the attack. Lines of skirmishers have remained quietly lying down, keeping up their fire, and even if the horsemen went clean over them they never got annihilated; indeed, their losses were not very great, for horses generally avoid treading on a living creature, doing their best to clear it, so that the skirmishers would jump up and fire on the rear of the horsemen, whose attack utterly collapsed when a little further on they encountered the supporting companies drawn up

* In this passage reference is made to the author's letters upon cavalry, published in 1884, and forming the first volume of the series to which that now before us belongs.—Tr.

† The fifteenth chapter of the latest edition of the German Field Exercise Book is, however, devoted to a description of the formation of square from double column and from line.—Tr.

in line.* Even in 1866 lines of skirmishers often remained quietly lying down to resist cavalry. Thus, I have been told that when the second and third companies beat off the cavalry in front of the wood of Sadowa ("Prussian Staff History," p. 353), the skirmishers never stirred from their places, except one man, who tried to rally on the support, and was the only one amongst them wounded. But for infantry to act in this manner in the fighting line it must be thoroughly trained, must keep perfectly steady, and must have complete confidence in its fire-arms. We remark that, in order to carry out these principles, whenever the "alarm" is sounded at field exercise it is now the practice for infantry lines and skirmishers to change front in the direction of the supposed approach of the cavalry, and to commence volleys or a rapid independent fire with the 400-meter sight. I have noted on occasions of this sort that a part of the line would wheel back in order to be on the same front with the remainder of it. I consider this to be a very doubtful proceeding, particularly in the case of skirmishers, because the men who thus change their front must do so with their backs to the enemy; in fact, they must, to a certain extent, run away. Now there is nothing so depressing as running away from an enemy, particularly when that enemy consists of horsemen galloping after you, for the human heart is so constituted as to be shaken by certain things. One of the most doubtful points about the square is that in order to form it you must run away from the cavalry, and men are apt to think that it is all up with them if they can't run fast enough. We have all read how, quite of late years, the Egyptian troops near Suakin, although armed with the best rifles, allowed themselves to be butchered in the most lamentable manner by savages armed only with spears, after having got away from them by running into square. Another objection to this proceeding is that whilst running away you do not see what your enemy is about. The whole conditions are reversed if you run towards him. The very fact of your doing so imposes upon cavalry and frightens the

* The affair near Mouzon, on the Meuse, on the 30th August, 1870, was a case in point, and one well worth studying, though but little noticed by military writers. It is described in pages 1089–1090 of the Prussian Staff History. After their defeat at Beaumont, the greater part of the troops engaged crossed the Meuse at Mouzon, the Fifth Cuirassier Regiment remaining on the left bank to cover the retreat. The Prussian Fusilier Battalion of the Twenty-seventh Regiment, forming part of the pursuing force, was formed with one company extended, its right *Zug* being thrown forward, whilst the other three companies were in rear of it, in line of company columns. The cuirassiers charged the right *Zug* of the skirmishers in rear. The captain of the company made this *Zug* face about towards the horsemen, and ordered the whole company on no account to close, but to receive the cuirassiers as they stood, and only to fire when ordered. The Frenchmen charged home, but being received with a rapid independent fire at close quarters, were repulsed with fearful loss, their colonel, 10 other officers, and 100 men being killed or wounded. The Prussian company did not lose a man, a few being slightly bruised by coming into collision with the horses. The remnant of the cuirassier regiment galloped away as hard as they could to the river which, in consequence of the bridges and fords being blocked by other troops, they attempted to swim, many men and horses being drowned in doing so.—Tr.

horses; therefore, I always insisted that changes of front made under the circumstances alluded to should be executed only by wheeling forward towards the advancing cavalry, even though the new front might in consequence not be quite continuous, but broken somewhat into échelons. It seems to me that our infantry, constituted as it is at present, may entirely relinquish the formation of square, but that an infantry inferior to ours, either from being newly raised and therefore without sufficient cohesion, or for the same reason not well trained in shooting and therefore without due confidence in its arm, may still be forced to resort to the formation of squares. English troops have, indeed, within the last few weeks, moved in large squares against the wretchedly armed savages near Suakin. We can hardly judge from mere newspaper correspondence what were the grounds for this action on their part, nor are we yet able to express an opinion as to whether the proceeding was justified. I will now mention something which has often struck me at peace maneuvers as well as in war. I have already noticed to you, when writing upon cavalry, how commonly one remarks that when it intervenes in an infantry engagement and charges, the infantry, on its own side, as soon as the cavalry masks its fire, looks on perfectly inactive, though full of sympathy and of interest in its proceedings, instead of utilizing the moment when the enemy's fire is diverted from it to rush on and gain as much ground as possible, or to assist the task of the friendly horsemen by its fire at close quarters. As a general rule, infantry at such times give way to a certain feeling of apathy and indolence, looking on with astonishment and curiosity at the spectacle before them. I have frequently represented such situations when directing maneuvers against a masked enemy, and although I have on such occasions made known beforehand my intention of giving the infantry an opportunity of co-operating with cavalry in an attack of the sort above alluded to, I have always found it necessary to ride up myself or to send some one for the purpose of urging the infantry to go forward. The reason assigned for this unwonted inactivity on their part is this: "They were not accustomed to do this; they had never done so." They had, in short, too little practice in combined action with cavalry. The action of infantry suddenly aiding the attack of cavalry by opening a rapid independent fire at close quarters is, however, most telling, and especially against hostile cavalry, because it comes so much as a surprise. With reference to this we need only read the account of cavalry combats during the battle of Königgrätz to be convinced how much the result of the great cavalry engagement was affected by the rapid advance of Prussian infantry detachments, which mostly pushed forward independently ("Prussian Staff History," pp. 404–416). Wherever the masses of gallant Austrian horsemen were getting the best of it their onset was arrested by the unexpected fire which assailed them from Stresetitz and Langenhof, and even the isolated skirmishing *Züge* of Lieutenants Daum and Oldenburg, which had pushed forward beyond

the sheep farm of Langenhof, threw a heavy weight into the scales, until the Prussian cavalry regiments coming up in succession became sufficiently numerous to drive the Austrian horsemen from the field. I can well imagine your smile and your remark that in the case just described the fault of inaction, of which I have accused our infantry under similar circumstances, was not committed. I admit that in this one case it was so, but has this been always and everywhere the same? I pray you to excuse me from quoting the cases which have occurred in actual warfare where blame has on this account been deserved. I do not feel myself justified in doing so. A cavalry duel is full of changes and chances, and the result is always uncertain. First one side, then the other, will be in the ascendant. You require infantry to come up in order to give the first support to the successful cavalry, enabling it to hold its own until the batteries can unlimber on the ground which has thus been won, and the "cannon's opening roar" gives conclusive evidence of victory. Therefore, both the sister arms—infantry first, artillery next—must hurry up to confirm the success of the cavalry.

Fire discipline.

I have often remarked how much fire discipline is weakened in action when the element of danger makes itself sensible. Troops imperfectly trained do not aim, they do not even fire, they only let off their pieces. Even before I ever saw a shot fired I was told by men experienced in war that infantry soldiers must have attained to a certain degree of proficiency if they could be got to put their rifles to the shoulder when firing. At the battle of Königgrätz I had a very near view of troops keeping up a wild fire with their rifles pointed straight up into the air. I was galloping in advance of my batteries to choose the next position for them, accompanied by my major, some adjutants, orderlies, and trumpeters, when in ascending a hill I found myself within twenty or thirty paces of a body of the enemy's infantry, about half a battalion strong, which had just evacuated Chlum, was making for Nedelist, which lay on their left, and found themselves between some of our more advanced infantry and my line of artillery. They were as much surprised at seeing us as we were at seeing them, and took a group of ten or twelve horsemen for the staff of a body of cavalry advancing to attack. At all events, they began firing wildly, and I saw most of their rifles pointed straight up into the air. Only one of these men took aim, and he shot the major's horse in the body just as the rider was turning him round to retire, for a small party of horsemen such as we were could do nothing against some 500 foot soldiers, so that we rejoined the batteries as fast as we could, in order to make them open fire upon these troops. But how much more trouble is required before we can train the infantry soldier to pay attention to orders and signals during all the excitement of battle, to observe the object to be aimed at, the sight and mode of firing to be used, and to cease firing when the specified

number of rounds has been expended. Every one knows, even those whose experience does not extend beyond field firing practice on the ranges, that without strict attention to orders and signals the effect produced by our costly breech-loader is simply nothing. Yet much has been done to simplify the use of the rifle. First and foremost we must note the low trajectory, thanks to which a single sight may be used (as long as you aim at your adversary's feet) from the time he comes within the range, where, owing to intensity of excitement, independent fire is alone practicable. But if, as we have remarked, soldiers must already attain to a certain pitch of fire discipline before you can be sure of getting them even to bring their rifles to the shoulder in battle, how much greater pains must be taken before you can get them to take aim. In other respects, also, the excellent instructions which proceed from our school of musketry make very great demands upon the self-control of the soldier when under the powerful excitement of battle. I allude particularly to the limiting of the number of rounds expended, and to the periodical interruption of the fire when engaged in rapid independent firing, that is to say, in the immediate neighborhood of the enemy. You are asking a great deal of a man who is being shot at when you tell him to cease firing for a while. I have often remarked how difficult it is with artillery to stop the firing when advisable, in order to let the smoke clear off so as to see what is going on. When firing once begins, men get easily out of hand unless restrained by an iron discipline. If this is true with regard to artillery, how much stronger must the case be with regard to infantry, in which the number of firers is so much greater. It is but human nature that a soldier should derive some comfort from the noise made by his own gun when it goes off. The more raw the soldier the more will he be inclined to "shoot himself into courage." During the first campaign in which I took part, I was present at a little outpost skirmish, after which a lieutenant inspected the men's pouches. The older hands had only fired from three to five rounds each, whilst every recruit had got rid of over twenty. Taking such facts into consideration we cannot help doubting whether the order "Five rounds rapid fire," when given at close quarters, say under 300 yards, will be attended to. This order or caution was only introduced into our service after the last campaign, and has not yet been tested in action. The group volley (*Schwarm-Salve*) is another aid to fire discipline introduced since the last war.

It appears to me (artilleryman as I am) a very good means of restraining infantry fire, so that it should tell with concentrated force, as does a salvo from well-commanded batteries. This system answered very well at peace maneuvers when the total daily expenditure of ammunition was limited to from ten to thirteen rounds a man, and where the comparatively small charge of the blank cartridge made less noise; but when it came to heavy firing of ball cartridge at field practice, the case was very different. Officers found it necessary, on account of the greater

noise, to tax the strength of their voices much more in order to make themselves heard and obeyed, in consequence of which most of them were so hoarse before the end of the drill that no one could understand what they said. This is not astonishing when one reflects that a single *Zug*, when extended, occupies a wider front than a whole company in close order, and that the lieutenants are on foot; therefore, at a disadvantage in comparison to the captains and field officers, who can shout over the heads of the whole line from their exalted positions. The employment of two or three different sights at the same time by different portions of a body of troops, as enjoined under certain circumstances, seems to me of even more doubtful application, in consequence of the difficulty of defining what you want, hence of your wishes being attended to, and there will rarely be time enough to ascertain that directions are properly carried out. However, this is a matter of less importance, because the use of different sights at the same time is only recommended for long ranges, at which firing is but seldom carried on. It is only when particularly compact and deep bodies offer themselves as marks (for instance, masses of men defiling over a bridge, or such like) that such means are resorted to. These are merely exceptional cases, which produce no decisive results. However just in theory all these ideas may be which emanate from our school of musketry, however useful too they may have proved in directing attention to the study of our rifle and of infantry fire, there still lurks behind them the danger of being betrayed by them in time of peace into illusions which would prove deceptive, and therefore discouraging, in time of war. It appears to me, then, that a line of skirmishers in which during the heat of action every man still pays sufficient attention to the lieutenant's whistle to cease firing when ordered, to look to him for an example, to jump up and run forward at his signal, or at his call to change his aim or the sight which he is using, gives evidence of a high standard of fire discipline. Therefore, one should not attempt too artificial combinations, but rather spend the time in repeating the simple routine hundreds and thousands of times, until it has become a second nature to the man. Thus and only thus can you feel sure that what you require will be done before the enemy. For "in warfare all is simple, but the simple is also difficult," says Clausewitz. My wish that the exercises of the company should be confined to the simplest and most elementary subjects, avoiding all complicated tactical movements and every kind of strategical combination, does not, however, prevent their being conducted in accordance with a tactical idea as we say, smelling of powder and ball. On the contrary, I should like the captain, as soon as he has got his company well in hand, to begin at once to handle it, and to make a practice of doing so as long and as often as possible, just as he thinks he would handle it in presence of the enemy. He may, for instance, always relieve the monotony of the march to and from the place of exercise by moving in a fighting formation suitable for attacking an enemy supposed

to be in front of him. When on the line of march, too, an opportunity may often present itself for representing a short skirmish or an attack, whilst the rest of the time may be employed in thoroughly imbuing the men with the elementary principles of reconnoitering duties whilst on the march. Thus may we gain time, and time is money. When in command of a division I contributed to its increased efficiency in field duties by issuing an order that no body of troops should move either to the field of exercise or in route marching except in order of battle and with a tactical object in view.

Supply of ammunition to troops under fire.

The timely supply of ammunition to troops in action is one of the most difficult services in war. Of what use is the most scientific strategy on the part of the general, or the most heroic conduct on the part of the troops, if at the most critical moment the latter are exposed without defense to the attacks of the enemy? During the war of 1866 I once experienced the bitter feeling of being without a sufficient supply of ammunition at such a time. During that war there were other corps of artillery worse off than mine in this respect. This led me to give much attention to the question of keeping up a constant supply of ammunition to troops in action.* My position during the war of 1870–'71 made it my duty to provide for the wants of an army corps in this respect, and I then brought my ideas upon the subject to the test of practice. Assisted as I was by the indefatigable zeal of my subordinates, I succeeded, notwithstanding the great exertions required of us and the great difficulties to which we were exposed, in making such arrangements that there was no instance of any body of troops in the army corps being in want of ammunition. In both wars our infantry expended but little—during the whole campaign of 1866 only from five to eleven rounds a man. In the war of 1870–'71, whenever I had occasion to send to the rear all the five artillery ammunition columns empty, two infantry ammunition columns, at the outside, would have to accompany them to be replenished.

My experience has been hitherto limited to the supply of artillery ammunition, but the principles for both arms are the same, and it will be well to make up our minds betimes as to the proper course to pursue, for our infantry will expend a great deal more ammunition in future, as it can fire now at longer ranges than before. The superiority of our small-arm was the cause of our small expenditure in 1866, for in consequence of it infantry engagements were not protracted. In 1870–'71 our rifle did not carry half so far as that of the French, and our artillery had consequently to share in doing a good deal of work which with the French devolved entirely upon the infantry. In future wars our in-

* Prince Hohenlohe commanded the "reserve artillery" of the Guard Corps in the war of 1866, and the whole artillery of the same army corps in the war of 1870–'71. —Tr.

fantry will be able to shoot at as long ranges as that of the enemy, and our expenditure in small-arm ammunition, supposing conditions to be otherwise identical, will be at least doubled. But the conditions will differ in this respect, that a protracted fire will often be maintained at the longer ranges, and when you come to the shorter distances, supposing both lines to be under cover, resort to the bayonet will be deferred longer than formerly, whilst the assailants endeavor meanwhile to break the enemy's resistance by weight of fire, and victory will often fall to the side which has the last round left. If our infantry never experienced a want of ammunition in 1870–'71, the same cannot be said of our opponents, who could even then fire as far as we can at this moment. When I took post with my batteries on the heights to the right of St. Privat, the enemy gave me time to establish myself there thoroughly before he took the offensive against me from Amanvillers. An aid-de-camp of General Ladmirault told me, some years after, that, as soon as I appeared on the heights, he was sent by his general to two infantry regiments with the order for them to take my batteries at once. But neither regiment had any cartridges left. The aid-de-camp had to ride back for other troops, and before they arrived we had taken our bearings, had ascertained the ranges of certain objects by trial shots, and had strengthened our line of guns, so that when the infantry at length assailed us they melted away under our shell fire. We have no authentic information as to how often the French may have been out of ammunition, but we know that Bazaine excused himself for not attacking us on the 17th August by his deficiency in this respect. Many other instances of indecision on the part of an army which had always hitherto been considered the representative of the offensive element in war may perhaps be attributed to this cause. Many believe the excessive expenditure of ammunition on the part of the French, and the occasional deficiency thereof which ensued, to have been caused, by want of fire discipline, which certainly does contribute to waste, and it cannot be denied that this was frequently the case; for the French, in consequence of experiments made on the rifle-ranges and at the camp of Chalons, before the war, expected great results from fire at 1,000 meters, and made men fire while running with the rifle held horizontally to the hip, a practice which proved almost useless at Sedan. Good fire discipline will to a certain extent limit the expenditure of ammunition, but we must not expect too much from it. It will, indeed, prevent fire from being opened at too long ranges. It will also enable officers to control the amount of shooting at the extreme ranges at which any at all is permitted. This will be especially the case as long as it is possible to fire group volleys, and thus in a way to watch each cartridge. But when the two fighting lines get near enough to one another for each skirmisher to see clearly the very man who is aiming at him, when casualties are becoming numerous, when the skirmishing sections are losing their leaders, whose successors have not yet established their authority, at such moments as

these a furious fire begins to "roll" (as the saying is amongst those who have experienced it) first of all along the ranks of the leaderless sections and soon along the whole line. Then all control over the expenditure of ammunition ceases, for the voices of the officers are no longer audible above the din of battle. From that moment individual fire reigns supreme. I do not intend to question in the very least the self-sacrificing valor of our excellent infantry soldiers, but still there are amongst them some who can only keep themselves up to the scratch by much shooting, for no one likes being killed, and most of them feel the need of keeping down the fear of death by great noise, which acts as a counter-irritant; so that the crack of the rifle must be pretty constant to counteract the numbing effects of fear until you reach the point where the cheer and the charge are allowable. To this feeling are added those of anger and revenge, inspired by strife when friends and comrades are falling around one, or when, perhaps, one feels the smart of a wound. I could name a certain colonel who got a slight hurt and became so infuriated that he took up the rifle and ammunition of a wounded man, and would not go to the rear to have his wound dressed till he had "knocked over three of those rascals" who had laid their heads together to do him harm; he accomplished this, but at the cost of three more wounds to himself. Therefore, when the fire fight is in full swing, when independent firing can be no longer checked, you must just put up with it; you can no longer do anything to save your cartridges. This is a factor with which you have to reckon, for it makes itself felt irresistibly without, and even notwithstanding, any interference of yours. Even with artillery it is very difficult to keep fire fairly within bounds after it has once got hot; yet it is much easier to watch every shot, for no single man can fire a gun at pleasure. With infantry, on the other hand, it is utterly impossible to exercise any check when the stage of hard fighting, man to man, has been reached.

At the same time this is the very stage of offensive action, particularly on open ground, when it is impossible to bring up a supply of cartridges. If, therefore, you do not wish to be exposed to the risk of your attack failing from want of ammunition, you must try to provide some other remedy for the excessive expenditure, and the only remedy is this: not to commence your attack until it is evident that the enemy's defensive power has been shaken by your artillery fire, and, further, when you do attack, to carry it out with such energy and with so thorough an employment of your supports, and, if necessary, of your second line, as to shorten to the utmost the duration of rifle fire. This will, however, only be possible if the plan of the attack has been well considered and the combined action of the two arms has been prearranged, as was the case at Villejouan.

Bodies of troops, however, which have in exceptional cases been obliged to fire at long ranges (1,000 to 1,100 meters) should at once receive a fresh supply before advancing, however small may have been

the expenditure. Further, every interval of repose should be utilized in completing the ammunition, the principle of, as far as possible, keeping every man constantly fully supplied being rigidly adhered to, as you can never tell what demands may be made upon you at each succeeding moment. And you must not wait for an actual cessation of hostilities, but you must also make the most of occasions when the enemy is only keeping up a distant fire upon you. The combat of Villejouan furnishes a good example of this. After our fusiliers had carried the place, great masses of the enemy advanced to retake it. The fusiliers had meanwhile completed their ammunition, the wagon-horses being, however, shot in bringing it up, which proves that there was no positive cessation of fire at the moment. In my opinion, our ammunition wagons are, according to established custom, kept too far back. I am not aware of any positive regulations on this subject. There is a great dread of exposing them to fire, just as formerly artillery wagons were kept too much in the background. What does it signify if one of them is occasionally blown up? Much better this than that troops should be exposed to the risk of annihilation owing to want of cartridges. And if now and then a pair of horses comes to grief the misfortune is not very great. You will take measures to replace them at the end of the action, and meanwhile you will rejoice at being well supplied with ammunition.

The wagon-horses of the fusiliers of the Seventy-sixth were well expended at Villejouan. One often reads fearful stories of the horrors witnessed when a powder wagon blows up, and how one should therefore avoid exposing both small-arm and gun ammunition wagons to fire, but I know by experience that the risk is not so great as might be expected and that an explosion of this kind is not so very horrible. At St. Privat all my batteries placed their first line of wagons near the guns, by order of Colonel Scherbening, so as to be able to make good at once each round expended. There they remained the whole afternoon, till night-fall, under artillery fire, and from 2 till 5.30 under rifle fire at from 900 to 1,000 paces distance. Not one of them blew up that day, though now and then a gun-limber exploded. One such explosion occurred just as an officer was looking into the limber for some purpose. He tumbled down, and was hard of hearing, besides having a headache, for three days after, but he is all right now and employed on the general staff. So that when I read that during the cannonade of Valmy, in 1792, the whole of Dumouriez's army was thrown into disorder because two powder wagons blew up, I simply don't believe it. A round of shrapnel or a common shell falling into a column does three times as much mischief as the explosion of a powder wagon. A suggestion has been made to me as to a mode of providing against a premature want of cartridges when infantry is taking the offensive, which is that, before the action commences, each man should be supplied with some twenty extra rounds, to be placed in his coat pockets. This idea is no

doubt good and practicable whenever there is time enough to carry it out, as, for instance, on the occasion of an attack, such as that on St. Privat, long prearranged; but in encounters such as those at Spicheren and Wörth time will be wanting for the purpose, or else you may lose some good opportunities of injuring the enemy by employing your leisure in this way.

There is one thing more to be noticed which stands in the way of a proper economy of ammunition, namely, that the men are not accustomed in peace time, as they should be, to attend to it. An ammunition wagon is rarely attached to infantry at peace maneuvers, for the soldier can easily carry on his own person the stock of cartridges required for the whole time.

In the Sixth Army Corps military train horses have been sometimes supplied, so as to practice bringing up ammunition in action. This gave an opportunity of observing how rarely these vehicles are thought of in peace time. I had constantly to call attention to this, for the empty, helpless carts were always getting in the way of the troops, and were looked upon as mere useless impediments. Those in charge of them never received any timely orders, so that one might be sure that if any battalion burdened with an ammunition wagon had to retire before the enemy in action, the wagon was certain to follow in rear of it, and thus to get between it and the enemy. I therefore hit upon the idea of filling the battalion wagons with the men's breakfasts at peace maneuvers, and of representing the supply of fresh cartridges by bringing up the rations, for I felt sure that the whole battalion would then be thinking of its wagon, particularly if I made a rule that should the enemy capture it he should have the right to devour its contents. Unfortunately, this idea of mine could not be made to fit in with the commissariat arrangements for supply.

It is, however, very desirable that ammunition wagons be allotted to battalions at all maneuvers, so that those who direct the operations may accustom themselves to give timely orders for their disposal, and may constantly bear in mind the question of ammunition supply. There is no other method of giving this important training than that of obliging officers to think daily and hourly about it. General instructions on the matter are of no avail. The special situation varies in each individual case. Every battalion commander should, however, be thoroughly determined to take all possible opportunities of making good even the smallest expenditure of cartridges, so that the supply, both in pouch and knapsack, be kept always complete, and, in fact, that the wagon supply be consumed before the store in possession of the men is expended. It was only by acting on this principle that I prevented a deficiency of gun ammunition in 1870–'71, making a rule that the wagon supply should be used up before that in the gun-limbers was touched, by which means the latter was always available for any sudden emergency. I said just now that general directions were of no

avail; I will go further and maintain that even general orders are of no use unless all those whose duty it is to have them carried out take great pains to make people think of them. I can hear you say, "The devil must have his hand in it if this is not the case." But I assure you that the devil does have his hand in it, for it suits his little game. It is of no use afterwards to say, "Oh! but the most positive instructions were given; why did the battalions not follow them?" The battalions are the sufferers; the commanding officers who received the special instructions are no more, and that is why the sin of omission was committed. Give heed to this anecdote: Before our departure from Berlin, in 1870, an order was issued from the general headquarters, at my suggestion (as I had to arrange for the dispatch of the reserve ammunition), that in every action the commander of the army corps artillery should make known to the different divisions the situation of the ammunition column, and that the division commander should, after each battle, report to headquarters that his battalions were complete with cartridges, or if not, should account for any deficiency. On the day of St. Privat I made it known to the divisions that the infantry ammunition columns were at Batilly, where battalion wagons might be filled. Next morning, however, no reports came in. I rode all round the bivouacs and ascertained that very few of the majors or adjutants who had read the order in question were to the fore, most of them being killed or wounded. No one was to blame. I rode from battalion to battalion and saw to the matter myself, for I could not hold the ensigns and young lieutenants whom I found on that day in command of some of the battalions responsible for the want of obedience to orders, and on that account I made no report of the irregularity to the higher authorities.

There is one thing which I wish to call attention to and which I have learned by experience. Care must be taken in regulating the supply of ammunition to steer clear of all pedantic adherence to form and red-tapeism. When troops are fighting they don't like having to furnish requisitions and estimates. Forms A and B are held in horror.

When a man is readily venturing his life from moment to moment at the call of honor and duty, he thinks it hard to be required to render an account of expenditure, when perhaps he may within the next half hour make a settlement in full with his life's blood. And even if a corps should render a false return to the amount, say, of 10,000 rounds, it could be done without detection merely by showing 10,000 extra cartridges expended. But who would ever dream of embezzling cartridges in time of war? What would he do with them? Therefore, you must, when in the field, give up controlling your expenditure of ammunition by double entry. Having myself, in former campaigns, experienced the useless annoyance and inconvenience to which troops are exposed by the demand for periodical ammunition returns, and having come to the conclusion that it only delays the issue, without being any real check

upon consumption, if ammunition is refused except upon the production of a requisition accompanied by a return of amount issued, I inserted in the order above quoted, that every soldier belonging to the army corps who came during an action to an ammunition column with cart or wagon for cartridges was to have them, forms of receipt being kept ready on which were to be entered, from the information given by the applicant, the company, battalion, and regiment for which the ammunition was required, the soldier signing or putting his mark to the document. I met the objection that such munificence would cause loss of ammunition by replying that it was better to lose 10,000 rounds at once by errors of reckoning than to let a single company be in want of ammunition when in action through pedantic adherence to form.

But even this process did not answer in all cases with the artillery during the last war, and in future the demands of infantry will be equally great. It will then doubtless be necessary for ammunition columns to detach wagons to different parts of the fighting line, and we must make up our minds to this. Troops actually engaged must make a point of completing their ammunition at all times, without waiting for orders, whenever they get a chance of doing so, whilst the leaders of ammunition columns following out of fire must consider it a sacred duty to meet the troops to which they are attached half-way, and to furnish them with supplies, also without awaiting orders, which the general might have neither time nor means to send in the heat of battle.

Most especially must this be attended to at the end of every serious engagement and after every assault, when the din of battle, which has been for some time waging louder and louder, ceases all at once as if by a sudden blow. Then every one in charge of ammunition must hurry to the front, and do his utmost to reach the troops which he has to supply.

Attack across open ground.

Having been asked to give a detailed account of the mode in which I think infantry combined with artillery should conduct an attack on a village across open ground, I will endeaver to do so, although it is always somewhat unsatisfactory to attempt laying down rules as to details which must needs be modified in each special case, and may, indeed, exceptionally be quite set aside. In order to perform my task I must begin by comparing the material effect of infantry with that of artillery, in doing which I must first of all observe that the results of target practice in peace time may lead to very false conclusions, for the conditions of war are very different. In the first place, the uncertainty as to the range naturally reduces the effect of fire, especially that of infantry, at distances where the trajectory rises above man's height. It is true that trial shots may be fired, but it is very difficult at certain distances, even at practice in peace time, to observe where rifle bullets strike, and in war perfectly impossible if the enemy is firing, on account

of the smoke. The assailants of a position are as a rule unacquainted with the distances, unless, as in the case of Le Bourget, the place is well known. But even then you cannot be sure of the effect of your fire, the strength of powder differing so much according to the degree of moisture in the air. I have known instances which I have myself verified of the difference amounting to as much as one-tenth of the range. This does not affect artillery as much as infantry, because the bursting shells are much easier to see, and give the best indication of how one should aim, the question of distance and of the variation of powder strength being equally cleared up by observation of their flight. I once had an opportunity, by assembling the artillery under my command for target practice, of giving both arms an idea of how much influence want of acquaintance with the distance of the objects fired at, when that distance is considerable, has upon infantry shooting, for I made both arms fire from the same base at similar marks. A battery of six guns first fired on an infantry target, representing a company in extended order, then against an artillery target, representing six guns. A company of infantry made up to the war strength went through the same practice at the same time, only reversing the order. Distances were unknown to the firers, being between 1,000 and 1,100 meters. Sighting, nature of fire, and with the artillery choice of projectiles were left to the captains. The result was very striking. The battery made thirty times as many hits on the infantry target, and a hundred times as many on the artillery target, as the company; moreover, and this is of material consequence, the time taken, the total cost and weight of ammunition expended were the same in both cases. The conclusion to which I came is that we are guilty of a gross waste of ammunition if we allow infantry to fire up to 1,000 or 1,100 meters when artillery is available. If you next picture to yourself a duel between infantry and artillery, the result will be still more decidedly in favor of the latter arm, because as the fight goes on the fire of the former is being constantly reduced by casualties, whilst the six guns will remain in action to the end, although a certain number of men and horses have fallen. But the case is much altered at the shorter ranges, for the effects of artillery fire do not increase below a range of 1,000 to 1,100 meters, these being the distances at which gunshots tell with crushing effect, whilst infantry fire becomes more and more effective the nearer you get. Our experiments proved that it was only when you get within 500 meters that the effect of infantry fire approaches that of artillery, and that within from 200 to 300 meters the two arms are on equal terms. When you take into consideration the excitement of battle, the comparison will be still more to the disadvantage of infantry, for when the soldier's blood is heated the weapon will shake in his hand, whereas the cannon has no nerves. It will also sometimes happen, on the other hand, that excitement will trouble the vision of him who lays the gun, or otherwise disturb the service of the piece. Some batteries which had fought very

long and gallantly at Königgrätz reported that as the firing went on their shell fell from 300 to 400 paces short, and they attributed this circumstance to fouling. Our experts racked their brains over this, for no such thing had ever been noticed in peace time during the experimental trials of the durability of guns, at least at all to the same extent. My belief is that the gunners omitted, through excitement, to examine the tangent scale after every shot, and that it gradually fell lower and lower, owing to the shock of each discharge. The fouling of the guns was not observed to produce a similar effect in my batteries, but I have noticed that their practice was at times affected by the enemy's fire, and that when this was very telling, some shots were badly aimed on our side, some indeed being fired without aim, so that I had to take strong measures to get the gunners to resume a steady and orderly service. This is possible with artillery, but it is utterly impossible to exercise the least control over the aim of the infantry soldier, particularly when under hot fire. These considerations suggest to me the reason why the Field Exercise Book of March 1, 1876, only permits rifle fire beyond 500 meters when directed on large objects. If an alteration was afterwards introduced making the distance fired at and the nature of fire dependent upon the rules laid down in the musketry instructions, the reason for this alteration was probably the desire to keep our system of field exercise in harmony with any fresh regulations as to distance rendered necessary by fresh improvements in fire-arms. Up to this time the increase since given to the range and accuracy of the rifle is not so remarkable as to render any fundamental change in the regulations requisite. I think, then, that I do not err in fixing the distance at which one may, as a rule, allow infantry attacking a village in combination with artillery to open fire upon its outskirts at 500 meters. It is very important that infantry should not commence firing too early, lest it run the risk of being left without ammunition just at the most critical moment. It is taken for granted that on all such occasions the defender is also provided with guns, so that an artillery duel will be the prelude to the infantry attack. Only when the batteries of the assailant have succeeded in mastering those of the defender, which must be accomplished at long range, only then will they be at liberty to turn their attention to the outskirts of the village, approaching it as close as can be, so that their fire may produce the utmost possible effect upon the garrison; that is to say, as close as the range of the infantry rifle will permit, or something over 1,600 meters. The artillery will therefore unlimber at from 1,600 to 2,000 meters from the village, and open fire upon its border. The infantry will meanwhile approach to within 500 meters of it, taking care not to mask the fire of the guns, thereby losing the advantage of their support. The line of skirmishers will then add their fire to that of the artillery, which will next move on, under cover of the infantry, to the decisive range of from 1,000 to 1,100 meters, whence its effect will be crushing. If there be more than one battery

in action, the guns will advance in échelon, accompanying the infantry up to its last position before the assault, half of them keeping up their fire while the other half move forward. There will thus be no intermission to the cannonade. Are you surprised because I, who am an artilleryman, require batteries to move up to within 1,000 or 1,100 paces of a village occupied by infantry, in days when shrapnel ranges beyond 3,000 meters, and when its effect at 2,000 meters is murderous? Well, I require this not only from the gunner's standpoint, but also from that of the foot soldier. Firstly, because at 2,000 meters it is difficult to observe where your shots strike; hence at this range the effect of your fire is questionable. So much for the artillerist.

Again, the infantryman will be apt to expect the guns to support his advance until he makes his last rush, but this cannot be done with safety to him if they remain at 2,000 paces from the enemy, for at this distance it is not easy to distinguish friend from foe when the two sides are approaching close to one another. Badly aimed shell or shrapnel bursting prematurely may endanger your own infantry. Artillery should, therefore, if kept back, cease fire when the infantry gets within 500 meters of the point attacked; but if it approaches to within 1,000 or 1,100 meters, it may continue its fire in security until the infantry has entered upon the last hundred paces of its final rush, for at this close range the aim of the gunners will be so certain that no accident will be likely to happen. Moreover, it is not encouraging to infantry, when at very close quarters with the enemy, to see their own guns kept back a mile to the rear, whereas it is enlivening and comforting to hear them thundering away close at hand at such critical moments. Those only who have heard the cheers which infantry give the batteries which have stood by them in the fight can form a full idea of the moral effect produced upon the former by the support of the latter.

You will perhaps object that artillery will no longer be able to approach within 1,000 or 1,100 meters of a village occupied by the enemy, for infantrymen, firm believers as they are in the powers of their arm, feel confident that at such a distance they can annihilate batteries, and I myself recommended a few lines back that the first position for the guns should be chosen beyond rifle range. But I can state from experience that infantry fire is not annihilating at the distance named. The well-known soldier's song is in the right when it says, "It is not every ball that hits," and this assertion is corroborated by a comparison of the number of casualties with that of rounds expended. I remained with my batteries in position before St. Privat from 2 to 5 p. m., during which time three battalions of French infantry were extended in the furrows of the arable land in front of us, at from 900 to 1,000 paces distance, keeping up a constant fire upon my guns and upon nothing else (not to mention six other battalions in second and third line). We suffered very considerable loss, but no gun was for a moment silenced during those three hours in consequence of rifle fire. Whenever one

of the guns was silenced for a few minutes it was in consequence of the enemy's artillery fire, which occasionally smashed a wheel or something else. When the batteries were required to advance with the infantry, between 5 and 6 p. m., only three out of eighty-four guns remained behind for a time, being at the moment under repair. All other damage had been made good in position under the enemy's rifle fire.* The loss inflicted by the latter will be sensibly diminished if the enemy's infantry are vigorously opposed by your own skirmishers, against whom in that case their fire must be principally directed. On that account I recommend that the guns be kept out of effective rifle range till your own battalions are able to support them with a heavy fire. The war of 1870–'71 completely dispelled the old prejudice against allowing artillery to enter within the limits of rifle fire. I do not see why the gunner should be exposed to less danger than the foot soldier. Moreover, the former does not, under similar conditions, run the same risk as the latter. If you count the men who stand on the front of 120 paces which a battery occupies, you will see that those in a strong line of skirmishers of equal extent are much more closely packed, and may therefore naturally be expected to suffer more loss. Moreover, the bullets which at field firing in peace time strike guns, limbers, horses, &c., count amongst the hits, whilst on service they make but little impression upon the men, and do them no harm. Artillery may therefore when needful expose itself to infantry fire. Why do I not then require batteries to accompany infantry to close quarters, even up to 500 meters of the enemy? My reason is that you cannot always avoid making guns fire over the heads of friendly infantry, and this may be done without risk when the latter are below the highest point of the shell's trajectory, but not when immediately in front of or 100 paces in advance of the guns. Besides, notwithstanding all technical improvements, there will still be now and then a case of a shell bursting in the gun and spreading at once, like shrapnel. At the bombardment of Montmédy I was standing some 800 or 900 paces from my field batteries, and straight in front of them. Many defective shell were fired, the splinters of which hopped along to within 200 paces of us, so that at 600 paces one would not have been safe from them. It is therefore advisable, for the sake of the infantry, that the batteries should keep some 600 meters behind the point at which the former makes a halt of considerable duration to open fire. When arrived at its advanced positions of 1,000 or 1,100 meters from

* On the same afternoon four batteries of the Seventh Army Corps crossed the causeway leading from Gravelotte over the valley of the Mance under a fearful fire of artillery and infantry. Two of these batteries had to retire with great loss and without unlimbering, but the other two came into action after crossing the causeway, finding some cover within 700 yards of the French positions and in the foremost ranks of the Prussian infantry. Here they maintained their ground and kept up their fire for some hours, till the end of the battle, under a heavy fire of guns, mitrailleuses, and rifles. one of these two batteries losing altogether 37 men and 75 horses. (See Staff History, p. 813.)—Tr.

the enemy, the guns need not at once cease firing when the last rush commences, lest they should draw the attention of the enemy's reserves within the village to the fact that a fresh stage of the combat is beginning; but they may, after the cheer of the foremost line of assailants when about to charge, throw a few rounds of shrapnel into the interior of the place, so as to disquiet the reserves, without any fear of endangering their own friends, since it will require some time for the latter to get far enough forward to come under their fire. It is really of the greatest importance that artillery should keep up its fire until the infantry has broken into the place, otherwise the whole advantage of your preparatory fire may be lost. The opposite practice, however, answered very well on the day of Sedan, when we carried the Bois de la Garonne, although our guns ceased firing before the infantry commenced their attack; but, on the other hand, I witnessed the failure of an attempt on a village, the border of which had been previously so fiercely cannonaded that the defenders ran out to the flanks and hid themselves. Our artillery was then ordered to cease firing, because the general in command did not like the guns to fire over the heads of our own troops, and after this only the infantry advanced. Meanwhile all the defenders had returned to their posts, and the attack failed in the same manner three times in succession. You must excuse me from naming time and place, for I should be sorry to impute blame to an officer whom, on the whole, I esteem greatly. So much for the support which infantry has a right to expect from artillery in attacking a village. It must at the same time take care not to obstruct the fire of the latter when getting to close quarters. How should infantry act in the special case before us? I think, when the nature of the ground admits of it (and we are assuming that the attack has to be made across open country), that the battalions should be formed in order of attack before passing the position occupied by the guns at 1,600 or 2,000 meters from the village; that is to say, a strong line of skirmishers (not less than two *Züge* per company) should be extended, with supports in open line. The whole of the second échelon would be in open line, as I take it for granted that the enemy's guns are already silenced. It stands to reason that the touch will not be given up, either by supports in the first échelon or by the companies in the second, until within range of unaimed rifle fire. The companies of the second échelon may with advantage be made to overlap the flanks of the first échelon. * * * If the batteries have found room for a position on one flank of the infantry, which I will call the inner flank, it will be found advisable, and it will be at the same time quite in keeping with our regulations, to échelon the supports of the skirmishers and the companies in second line chiefly on the outer flank, for the guns will protect the inner flank from surprise, at the same time having the most powerful effect upon the portion of the enemy's position in front of that flank; so that it is well on all accounts for the assailant to concentrate a strong force upon

the other flank. As for the distance of the supports and of the second échelon from the skirmishers, the regulations recommend this to be modified according to the nature of the ground, being greater in open country but reduced as much as possible when cover can be obtained. As I am now treating of an advance across open ground, we must assume in this case the greatest allowable distance. At 200 meters supports can exert some effect on the flank of the skirmishers by firing volleys at need, if placed so as to overlap the outer wing. If this distance is preserved, when the skirmishers, having arrived within 500 meters of the enemy, commence their attack by opening fire, supports will be at 700 meters, the companies of the second échelon at 900 meters, where they will not suffer seriously if they lie down.

The following measure cannot be sufficiently recommended, although rarely practiced in peace time, and, therefore, from want of habit, generally ignored in war, namely, that when infantry are passing near guns in action they should always get the range from the gunners, who will already have made it out. For, however much practice you may have had in judging distance, you will be much deceived by effects of light and by the state of the atmosphere, and it is only natural that you should think an enemy who is shooting at you to be nearer than he really is. I must acknowledge errors into which I, but not I alone, have fallen. When leading my batteries, on the day of Königgrätz, through Jeciceck up to the first position, after crossing the Trotinka River, I rode forward to choose my ground. Arriving on the flat plateau with the division and battery commanders, we all agreed in estimating the distance of the Austrian artillery from ourselves at 2,500 paces.

It was in action on the now historical hill of Horenowes. Our first shell proved the range to be much longer than this, and as it was only after our fourth shot, with 4,000 meters elevation, that we just reached the enemy, I limbered up and moved to the next swell of ground, 2,000 paces in advance. This shows how artillery can correct its aim, whilst for infantry it is almost impossible to do so at the longer ranges if the enemy is firing, as they cannot see where their own bullets fall. Mistakes are also made in the other way, particularly if snow-flakes falling between yourself and the enemy obscure your vision.

During a small reconnoitering skirmish near Nübel on the morning of February 10, 1864, I was one of a group of ten or twelve horsemen for some time near a house against whose walls the bullets struck, flying over our heads. These were fired by a Danish flank patrol, consisting of three men posted in a clump of trees. We were astonished at the long range of the enemy's rifles, as after a good deal of discussion we put the distance at 800 paces. When the Danes had been driven away we had the distance paced and found it to be only 240 paces. The enemy must have made the same mistake as ourselves, for all their shots were aimed too high. It stands to reason that errors of this de-

scription render all your fire of no effect, the only result being that you give the enemy confidence. * * * All attempts to prevent error by the use of range-finders have hitherto failed in action, owing to excitement and to frequent change of position.

Artillery fire still continues to be the best and quickest range-finder, all the more so because, as before noticed, the trial shots not only serve to find the range, but also at the same time to show what allowance should be made for the effect of the weather upon the powder. I think that if the artillery fire directed on the borders of the village has had due effect, it will not be necessary for the skirmishers in going up to their first offensive position, whence they will open fire at 500 meters from the enemy, to do so at the double, for the defenders will probably be so fully occupied in getting shelter from the shell and shrapnel which will be falling amongst them as not even to notice the advance of the skirmishers, and if they do remark it, how many of them will be bold enough to put their heads out of cover so as to take aim? It is indeed quite on the cards (and this really happened at Villejouan) that the assailants will get much farther forward without firing a shot. This will be their proper course if it can possibly be done, and if they receive instructions to do so before advancing, for the movements of skirmishers once in contact with the enemy can no longer be directed by the higher authorities, all command then devolving upon the company officers. Skirmishers must be made to thoroughly understand that it is only allowable to run in moments of extreme urgency, as running heats the blood and makes the hand unsteady. I am not making any undue demand upon skirmishers when I require them to move steadily and calmly forward under fire, always, of course, supposing its effects not to be too deadly. In the combat before Fredericia, on March 8, 1864, I saw our skirmishers advance across a country heavy from the effects of rain. The enemy's bullets began dropping in amongst them from a great distance. They looked about them with surprise, formed a good estimate of the range, shook their heads with a merry laugh, and kept on advancing slowly over the difficult ground, where to run was out of the question. Whenever practicable, therefore, troops will be prevented from running until they proceed to make their final rush with the bayonet. Whenever the attack is supported by artillery, the infantry should be strictly forbidden to commence firing till within 500 meters of the enemy, lest they should expend their ammunition before getting to close quarters, for it is surprising how quickly men will get rid of their cartridges, and you cannot under any circumstances safely reckon upon providing them with a fresh supply, when attacking across the open, from the time they get within 500 meters of the enemy to the moment of closing with him. All suggestions which have been made with this object must be considered inapplicable to this stage of battle, however practicable at long range, during intervals of inaction or when on the defensive. Thus, during the fight at Villejouan it was possible to

bring up the ammunition wagons and to complete the men's supply after the village was carried, and while the companies then on the defensive repelled the counter-stroke of the enemy's masses. Thus, also, at Beaune la Rolande men carried fresh cartridges in their helmets to the defenders. But when a line of skirmishers advancing to attack across an open plain has arrived within 100 or 200 paces of the enemy, and finds itself short of cartridges, no fresh supply can be obtained. No wagons, not even a man carrying a bag of ammunition, can reach the fighters, and should for a wonder fortune favor some brave fellow in doing so, of what use would his 500 rounds be to the company? There would be some two or three rounds a man, and how are they to be distributed? If the skirmishers on reaching their first offensive position observe that some advantage has been gained over the enemy, the proof of which will be partial or complete cessation of fire, they will at once approach the village, whether in one general line, at charging pace for the whole or only for the last part of the way, or by successive rushes of fractions of the line, the firing being taken up by each fraction at the halt, to cover those advancing; all such details will depend upon the amount of persistency with which the defenders keep up their fire, which must, if not completely silenced, at all events be kept down very much for the attack to succeed.

How to train officers of the lower grades at field exercise.

[From the supplement to the "Militär-Wochenblatt," 1884.]

SIXTH PART.

The necessity of giving careful training to our officers is certainly recognized throughout the army. Maneuvers, instruction in field duties, the war game, and staff journeys, as well as exercises similar to those just mentioned carried on in various corps, give ample evidence of the zeal and energy with which this necessary work is performed. But all these exercises serve rather to fit officers for the command of the larger bodies and detachments and too little is done for the instruction of leaders in the lower ranks. Yet it is upon the latter that devolves the duty of carrying out the orders of their superiors; it is they whose incompetence may cause the best plans to fail owing to want of proper initiative, or, on the other hand, whose able and energetic conduct may lead to victory in spite of want of ability on the part of their chiefs, or, again, who by losing their heads at critical moments may produce disaster. At field exercises and autumn maneuvers the part played by these subordinates becomes a subject of criticism, the umpires being indeed specially bound to observe their conduct and to weigh the consequences resulting from it; but the very object of these exercises and their short duration prevent the performances of those officers from being so judged as to lead them to realize the limits of their power of independent action (limits elastic indeed, but not always to be overstepped with impunity),

and to teach them how to act in accordance with true principles. Their conduct on these occasions is briefly praised or sharply blamed, but cannot be criticised in an instructive manner. They are expected to do certain things, but they have no practice in what would prepare them for their duties. Yet where should this necessary preparation be given if not in the field of exercise? This is not too much to ask, since it is enjoined in our book of regulations, in which there are numberless passages describing situations in which leaders and commanders of all ranks, both commissioned and non-commissioned officers, indeed individual skirmishers, are called upon to act upon their own responsibility.

* * * * * * *

If now, notwithstanding these unmistakable indications of the Field Exercise Book, we do not seem to act up to their spirit on the practice ground, this may be accounted for by the fact that exercises of this nature are never or very rarely called for at inspections, the omission on the part of inspecting officers being to a certain extent due to a sense of justice; for many of them say to themselves, "If I expect troops to be tossed about in this way on the practice ground, I must give my subordinates credit for an amount of imagination which does not fall to the share of all, so that very unfair ideas may be formed as to the capacity of men defective in point of imagination but otherwise capable." This assumption, according to my experience, rests upon false premises, for the omission due to it is not justifiable, because the requirements of the field-exercise regulations necessitate, as I have shown, a kind of tactical training calculated to develop initiative in subordinate leaders, to make demands upon their intelligence, and to stimulate their spirit. I hold it, then, to be the duty of every superior officer to school the imagination of his subordinates, and that of every officer to school his own imagination. In this nothing will be required except what is most natural and most desirable for the soldier, namely, that in training the troops under his command he should always imagine himself to be actually engaged in warfare, keeping constantly in view the tasks which he and his men would be required to perform in the field. But in what manner can we give play to and educate the imagination at field exercise? The main point is for the instructor to place three considerations before himself and those under him:

1. Of what larger unit is my force a part, and what position within the same unit does it occupy? What tasks has that unit to perform? What special part has my force to play?

2. Where is the enemy? How does he act at different stages of the maneuver? What is the effect of his arms upon us, and what of ours upon him?

3. What is the character of the ground upon which we are to maneuver?

It will not be difficult to communicate information from the points under the first heading briefly and concisely. With regard to the second heading, we shall find it more difficult to represent and to make intelligible the position and movements of the enemy and the effect of his arms, but still we may well succeed in indicating him by means of men, of targets, and of flags; whilst his supposed appearance and disappearance from certain points outside the boundaries of the practice ground may be denoted by setting up marks upon its confines. The effect of the enemy's arms and of your own may also, to a certain extent, be realized by occasionally communicating certain suppositions to officers whose action will be thereby influenced. The consideration of the nature of the country, referred to under the third heading, is a serious matter, seeing that suppositious features of ground are inadmissible and strictly forbidden at field maneuvers. But the *exercise ground* is not the *field* (*Terrain*) in the military acceptation of the term; at the same time it is not an open, smooth, unplanted piece of ground, as it is too often erroneously considered, in contradistinction to the *field of maneuver*. In the words of the Field Exercise Book, page 163, it should be "a pretty open space, upon which troops can freely circulate, and on which all fighting formations can be represented as they should be practiced with a view to different suppositions respecting the enemy and respecting the nature of the ground, level, broken, or wooded, that is to say, without regard to the character of the practice ground itself."

* * * * * * *

A tactical example.

[See Plate No. I.]

The exercise ground is 1,500 meters (1,640 yards) square. The sides are directed on the four cardinal points. Access to the ground is gained by a broad road leading to the southern side. The brigade is assembled on this road in column of route, the head of which is about 500 meters (546 yards) from the entrance. The brigadier assembles mounted officers in a field on one side of the road, at the head of regiment B, which is leading. He makes the following communication:

"I assume that the brigade is followed by a division (*Abtheilung*) of the divisional artillery (three or four batteries), and then by the other brigade of the division; the remaining divisions of the army corps being drawn up in a similar formation 1,200 meters (1,308 yards) to the west. The exercise ground is bounded to the south by a river, only passable by means of a bridge which the road crosses. The black flags mark a low line of heights on the other side of the valley, which rise so much eastwards that the ground about the northeastern angle of the square is not visible from our present post. The enemy whom our army corps is advancing to attack is reported to be over 3,000 meters (3,279 yards) beyond the river. A squadron of our divisional cavalry

regiment is in advance on each road, whilst the remaining two squadrons have crossed a bridge to the east, so as to cover our right flank. When we advance, regiment B will throw out an advance guard, under cover of which the brigade will form up at the foot of the heights in line of battalion columns—regiment B on the left, regiment A on the right."

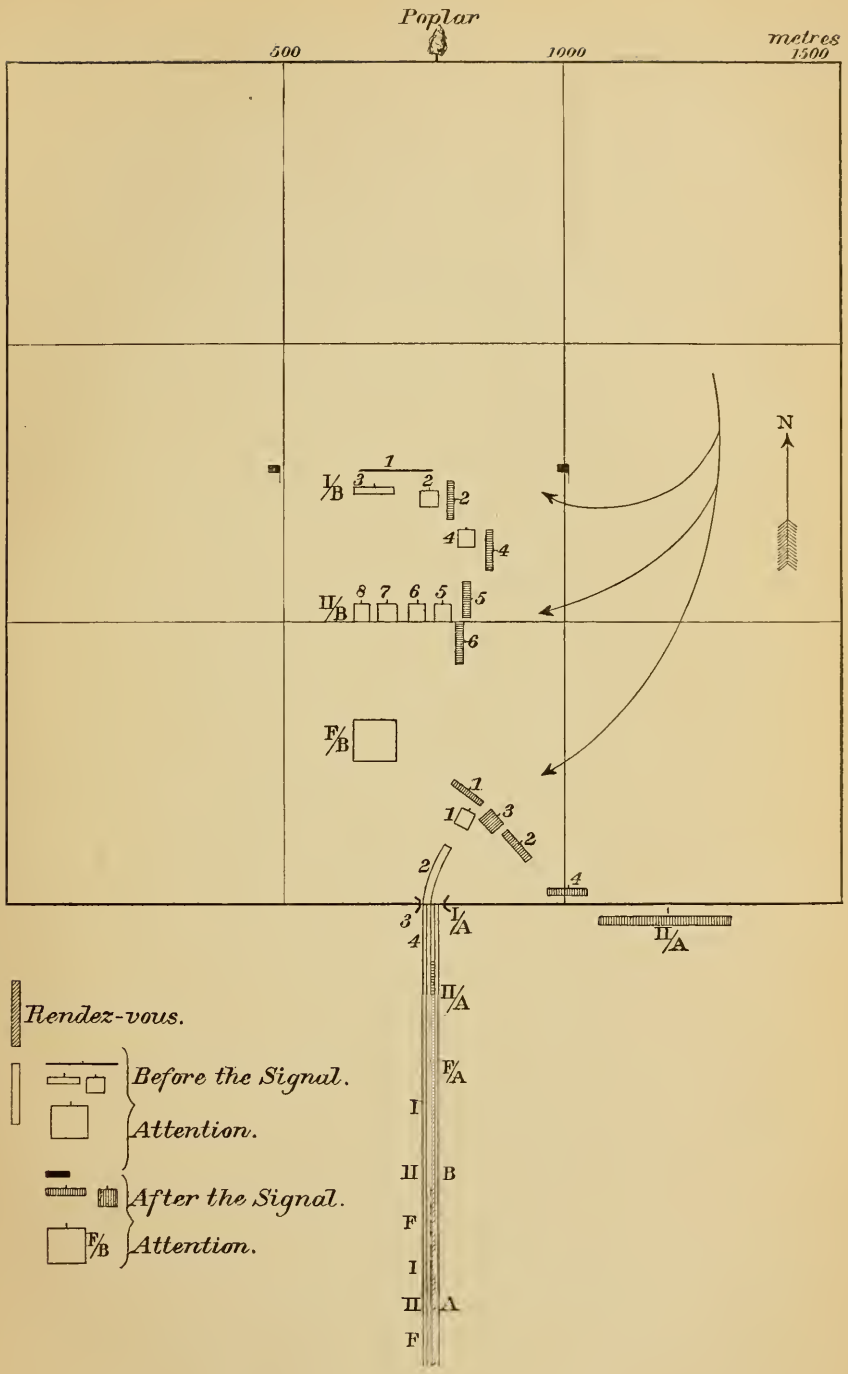
The brigadier now dismisses the mounted officers, and having allowed them time enough to impart to the troops all necessary information about the situation, gives orders for the advance. He betakes himself to the bridge, where he superintends the passage of the brigade over the river. As soon as Nos. 1 and 2 companies of the leading battalion (the first) of the second regiment (A) have crossed over, he orders the call "attention" to be sounded, points to the right with his sword, and gives the following notice: "A cavalry brigade of the enemy is dashing forward from several points out of a hollow to the east of the black flags and is charging."* The aid-de-camp, having received his instructions beforehand, makes a similar communication at the same moment to the commander of regiment B, who has already gone to the front. Both regimental commanders repeat the caution, dispatching their adjutants to pass the word to all portions of their command out of hearing. If the troops have been trained in the way supposed, the following measures, or something like them, will be carried out: The first battalion of regiment B, which had been thrown forward as an advance guard, opens out into a line of company columns at deploying intervals and occupies the line of heights with skirmishers.

The second battalion of the same regiment is drawn up also in line of company columns at deploying intervals in rear of the first battalion. The fusilier battalion of the same regiment forms double column in rear of the second battalion. No. 1 company of regiment A wheels up by *Züge* the eighth or sixteenth of a circle to the right. No. 2 company is still in column of sections; Nos. 3 and 4 are crossing the bridge. As soon as the signal "attention" has been taken in by all, the action goes on pretty much as follows: The right wing of the extended skirmishers wheels up and opens fire upon the attacking cavalry. All companies of the first and second battalions of regiment B whose front is clear deploy with the necessary change of front towards the cavalry, and fire volleys by two or by four ranks. Nos. 1 and 2 companies of regiment A do the same. Nos. 3 and 4 complete the passage of the river as quickly as possible, and fill up gaps wherever found to join in the firing. The fusilier battalion of regiment B, which is in double column, forms square, and also fires on the cavalry if its front is clear. The second battalion of regiment A deploys along the river bank to the right of the bridge, so as to take part in the affair by firing on the enemy's cavalry across the supposed river. The fusilier battalion of regiment A is still marching towards the bridge.

---

* Should not the advanced cavalry squadron have detected and reported the presence of this brigade?—Tr.

FIGURE I.

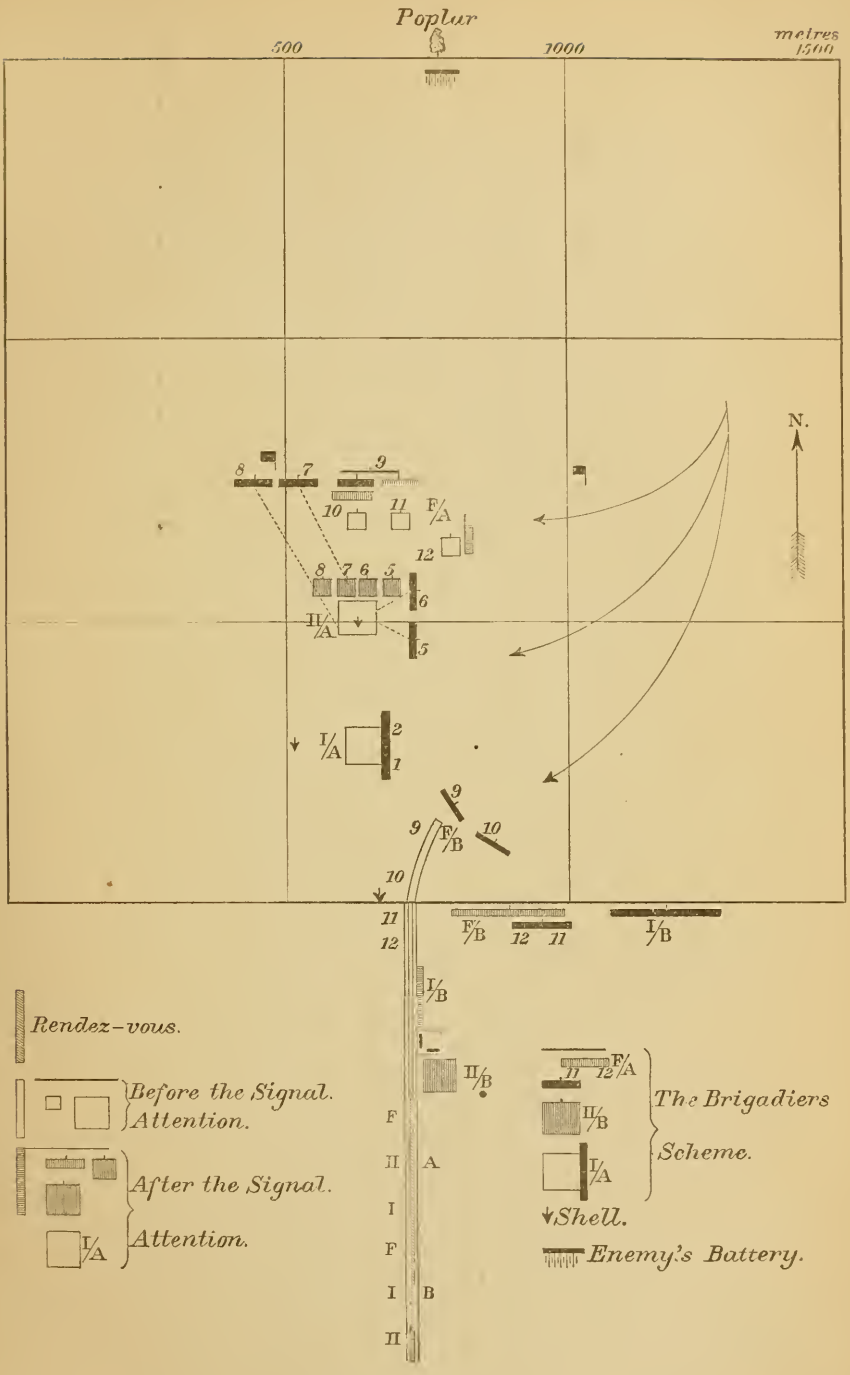

Poplar
500
1000
metres
1500
N
I/B
II/B
F/B
I/A
II/A
F/A
I
II B
F
I
II A
F
Rendez-vous.
Before the Signal.
Attention.
After the Signal.
Attention.

The brigadier has the "halt" and "cease action" (*Stopfen*) sounded, and again assembles the mounted officers. He will then, should the exercise have taken the turn just represented, give a picture of what captains might have done on their own responsibility, and will explain the advantages of such a course. Should, however, this have not been rendered necessary, there will still doubtless be some particular details of execution deserving of comment. I will assume that they are connected with the occurrences which I am going to notice. The first battalion of regiment B, which by occupying the heights marked by the flags is to cover the formation of the brigade after the latter has crossed the bridge, has extended one whole company (No. 1), two companies (Nos. 2 and 3) being posted each behind a flank of the skirmishers, and No. 4 being placed on the right rear. The brigadier asks why this particular disposition has been made. The battalion commander replies that as when he moved out there was no question of a fight, but only of taking up a position, he did not wish to break up more than one company, and as for the rest, that his object was to secure his right flank, the outer one. The company in rear of the left flank of the skirmishers (No. 3) has been drawn up in line, that in rear of the right (No. 2) in column. The brigadier, to whose inquiries the captain of No. 2 alone gives a definite answer, namely, that, appreciating the wish of his commanding officer to secure his right flank, he had desired to contribute to this end by a solid and compact formation—the brigadier, I say, restricts himself to approval of the manner in which the commander of regiment B had allowed battalion and company commanders to exercise their own discretion as to the distribution and formation of their several commands even in a situation which did not apparently require any departure from ordinary routine and uniformity. For a constant adhesion to fixed method may, under certain circumstances, produce more disastrous results than the sanction of a departure from uniformity as long as cohesion and control are not thereby endangered, and there is no fear of this when the want of uniformity merely consists in the formation and distribution of companies and battalions within their own field of operation, being varied, at the discretion of the several commanders, to suit the exigencies of each particular situation. In the case before us the strengthening of the right flank was fully justified. Even should infantry be aware that both its front and flank are covered by detachments of cavalry, it is not thereby released from the duty of being prepared for all emergencies. "All the same," remarks the brigadier, "as things have turned out it was hardly necessary for the company on the left of the skirmishers to deploy, or for the second battalion of regiment B to form line of company columns, as the latter would soon have had to join the main body of the brigade." The battalion commander takes the liberty of defending the course which he had taken, saying that he thought it his duty to place his battalion in readiness to support the first battalion. The brigadier accepts this explanation, particularly as

circumstances had shown caution to be necessary. He then proceeds to remark that he had noticed that, as a rule, too great elevation had been given to the rifles. One captain, for instance, had gone through the whole scale of his sights from 1,200 meters to 400 and back again. Moreover, no captain appears to have ceased firing without being ordered to do so. Waste of ammunition must be carefully avoided. A few volleys with the 400-meter sight, fired from all sides on cavalry allowed to approach within that distance, would certainly have sufficed to frighten them away with great loss. The necessity of husbanding the ammunition was all the greater because the enemy's infantry would soon have to be encountered. "The fusilier battalion of regiment B got rather out of hand in moving up," adds the brigadier, with the further remark that it might, when in square, have strengthened the fire from its right face by firing volleys from all four ranks. "Lastly," he says in conclusion, "the fusilier battalion of regiment A should have cleared the road, foreseeing, as it ought, that the general commanding the division would make no delay in sending forward the batteries."* The brigadier thinks that a repetition of the exercise just performed will be advisable, if only to show that he does not wish to recommend a cut-and-dried system of repulsing cavalry. He defers this repetition, however, to the next day, and confines himself for the remainder of the present one to parade formations and marching past, to movement in column, and to deployments. The orders given out for the morrow are as follows: "The brigade will be formed up in the same order of march as to-day, only that regiment A will lead, fusilier battalions being at the head of regiments." No instructions are given by the brigadier as to the order in which the other battalions are to follow. The commander of regiment A places his second battalion, that of regiment B his first battalion, in the center. Next morning the brigadier supplements his remarks upon the configuration of the ground by stating, "I assume that the poplar in the middle of the north side of the practice ground stands on a slight elevation; with this exception all previous notices about the military situation remain in force." He then dismisses the mounted officers (see Plate II). On the signal "advance" the operations commence. All commanding officers do their best to act upon the brigadier's remarks of the previous day. This is generally done with so much zeal that misapprehensions soon come to light. For instance, it was hard for some to believe that the brigadier was in sober earnest when he approved of the conduct of the commander of regiment B in allowing his company and battalion commanders full liberty as to the distribution and formation of the units under their command. The commander of regiment A might, perhaps, think that under the brigadier's seeming praise there lurked a sneer, to which he would take care not to expose his regiment. You may then be pretty sure that he will give his subordinates formal and

* Should not half a battery at least have followed immediately in rear of the leading battalion of the brigade?—Tr.

FIGURE II.


Poplar
500
1000
metres
1500
N.
8
7
9
10
11
F/A
12
8
7
6
5
6
II/A
5
I/A
2
1
9
9
F/B
10
10
11
12
F/B
12
11
I/B
I/B
II/B
F
II
A
I
F
I
B
II
Rendez-vous.
Before the Signal.
Attention.
After the Signal.
I/A
Attention.
11
12
F/A
II/B
I/A
The Brigadiers
Scheme.
Shell.
Enemy's Battery.

precise directions, and I assume from previous experience of such cases that he will order the supporting companies of the fusilier battalion not to deploy, and the other two battalions to fire volleys from all four ranks. The commander of regiment B also thinks it necessary to remind his rear battalion that it must take particular care to keep the right side of the road clear. In accordance with these instructions regiment A opens out into order of battle after crossing the bridge, when, whilst the fusilier battalion of regiment B is only half over, the brigadier orders the call "attention" to be sounded, adding to the notice given on the previous day: "A horse battery of the enemy has unlimbered on Poplar Hill. A shell from it has just fallen in amongst the second battalion of regiment A, another more to the west near the first battalion, and a third close to and westward of the bridge." The course of events is now supposed to be as follows: The second battalion of regiment A, into the midst of which a shell had fallen, and which had already completed its formation in double column, at once opens out by order into line of company columns. No. 10 company of the fusilier battalion of regiment A, which is facing the same way, deploys in the rear of the left of No. 9 company, which has extended. No. 11 company comes up in line close behind the right flank of the same skirmishers and fires volleys upon the battery, upon which all the skirmishers also fire. No 12 company, in échelon on the right rear, wheels outwards, deploys, and fires volleys on the attacking cavalry with the 400-meter sight. The first battalion of regiment A forms square, the right face of which fires volleys from all four ranks. Nos. 9 and 10 companies of regiment B, which have already crossed the bridge, double back, by order of the battalion commander, to the south bank, and deploy to the right of the bridge, in line with Nos. 11 and 12 companies, the whole four companies from thence joining their fire on the cavalry to that of the more advanced troops. The first battalion of regiment B lies down on the slope of the road embankment, the second battalion of the same regiment forming double column and taking cover behind some farm buildings. Regimental commanders ride to the battalions and companies, making here and there some change in the dispositions. The brigadier sounds "Cease action" and the "Officers' call." He will have good reason to represent the situation of the brigade as critical,* and as one which will make great demands upon the wariness, determination, and resolution of commanding officers and captains. He expresses his fear that as things have gone the troops which have crossed the river have got into a position of great difficulty, and in order to make things clear he begins by call ing attention to the fact that the enemy's battery, whose first shot only reached the second battalion of regiment A accidentally, could hardly fail to fire subsequently with great effect from its commanding position upon the bridge, which is completely exposed to view, and also on the

* Does there appear to be any good reason for the brigadier getting his brigade into so critical a situation?—Tr.

road, the whole length of which is enfiladed. "Under these circumstances," points out the brigadier, "the great thing is to disable the battery, with which object in view as powerful a fire as possible should be brought to bear upon it. At from 700 to 800 meters, at which distance from the first and second battalions of regiment A the battery had unlimbered, a well-directed mass fire of infantry may well be effective. The fire, however, as actually delivered was neither heavy enough nor properly directed, although very steady volleys were fired from all sides on both cavalry and artillery.

"First of all, I must again touch upon what I consider the first condition of a tactical exercise, the principal object of which is the training of the lower grades of officers, namely, that whilst the director of the maneuvers only gives out the supposition on which the operation is to be based, and abstains from giving orders, commanding officers must, in their turn, when making the dispositions necessary for acting upon the suppositions, take care not to influence in any way their subordinates in the distribution and tactical formation of the units under their command, leaving the responsibility for the same to those upon whom devolves in each particular case the duty of handling the troops in battle. No attention is to be paid to mere want of uniformity in such matters. At the critique which will always follow the tactical exercise the director will discuss and determine whether the course adopted in each case was appropriate, whether general unity of action was preserved, whether the supreme direction of the operations was facilitated or impeded, whether subordinate leaders overstepped the proper bounds of their authority, and last, not least, whether they failed to exercise a proper initiative within these limits. The commander of regiment A erred all the more grievously by his interference that it contributed to prevent the requisite development of fire. The chance shell which, according to my assumption, fell in amongst the second battalion when still in close formation, would, had the battalion already opened out into line of company columns, have probably expended itself in one of the intervals, and would at any rate have had a less disturbing effect had it struck a single company instead of the united battalion. The formation in company column, which was afterwards deemed advisable, would in actual warfare, even more than in the case before us, have distracted the attention of the battalion and company commanders from the necessity of immediate deployment to open fire, which might have been directed by two companies on the battery and by the other two on the cavalry. All the battalion commander had to do was to give the following cautions: 'Nos. 5 and 6 against the cavalry; Nos. 7 and 8 against the artillery.' It would then have been the duty of the captains on the right to make the necessary change of front, then to form line two or four deep, according to the space available, and to fire volleys either from two or four ranks, naming the range, whilst the captains on the left extended their men as skirmishers, judging their distance from the battery, in

doing which on service they would be aided by observing the effect of the volleys which the companies of the fusilier battalion would presumably have already fired. At peace practice they would either have heard the word of command given for the volleys or they would have to find out at what the range had been estimated, afterwards forming their own opinion on the subject. The captain of No. 10 company, supporting the left wing of the line of skirmishers, should not have contented himself with merely deploying, which he wisely ordered upon finding himself in the line of fire, but should have led his company up to the skirmishing line at the double and have taken part in the fire on the battery, an example which should have been followed by No. 11 company. That No. 12 should at once change front towards the cavalry was a necessary consequence of the situation, and an evident result of its position in échelon on the right. The men would have got into action more quickly if the captain had combined the wheel, the deployment, and the making ready to fire by giving the words 'Right wheel,' 'Deploy and load,' 'Halt,' all together, in keeping with paragraph 43 of the Field Exercise Book.* If, however, he could not feel sure that orders thus given would be carried out calmly and with regularity, he did well in delaying the commencement of his fire rather than make the men unsteady. But if companies are trained in accordance with the paragraph just quoted, and if battalions are trained in accordance with the concluding sections of paragraph 112, no doubt of this kind need be entertained.† The first battalion of regiment A, which was at the time in double column, and which the shell fire did not prevent from maintaining this formation, got into square, its right face opening fire from all four ranks. This was all done steadily and properly, which I accept as a proof that the above-quoted paragraphs are attended to in that battalion. A still greater development of fire would, however, have been obtained if the commanding officer had made the two companies of the right wing deploy to to right and left. There would have been room for this, as the battalion would not have been masked by Nos. 9 and 10 companies of the fusilier battalion of regiment B, which, as we know, although they had completed the passage of the river, had returned to the south bank at the double. This retrograde movement took place by order of the battalion commander, who evidently wished to keep his battalion in hand at this critical moment, and who afterwards deployed it at the double on the right bank in a very orderly manner, afterwards opening fire on the cavalry. I think it, however, worth considering whether the rapid movement to the rear of those two companies, which might have come into line in less time by moving to the front, and with no more exposure

* Paragraph 43 contains "general remarks" concluding the chapter upon company drill, whilst paragraph 112 concludes in the same manner the chapter upon the battalion.—Tr.

† "General observations" concluding the chapter on the brigade.—Tr.

to loss than fell to the lot of regiment B—whether, I say, this movement might not have exercised a bad and demoralizing effect had the enemy's shells really been falling all over the place. Besides which, the movement was in this case the most unsuitable which could be made, because, as already stated, the bridge and the road leading to it would most certainly have been the principal marks aimed at by the enemy's guns, the distance of these objects from him being, of course, well known to the battery commander from the map in his possession. The battalion commander might well have left the captains of Nos. 9 and 10 free to judge for themselves. The deployment of the whole battalion on the south bank, moreover, took so much time that the good, steady volleys of the companies would hardly have been fired soon enough to prevent the success of the enemy's attack if this had not been already repulsed by the troops on the other side of the river.

"That the first battalion, regiment B, which lay down on the slope of the embankment, would not have found cover there from the enemy's fire is evident from what has before been stated; it had better have formed up close behind the fusilier battalion, or just to its right; in the former case the four ranks closed well up to the front, in the latter case the two ranks of the battalions standing side by side would have presented that formation of minimum depth recommended in paragraph 137, page 191, of the Field Exercise Book.* Moreover, the battalion thus posted would have been ready to open fire at once in case of need.

"One last remark," says the brigadier, turning to the captain of No. 9 company, regiment A, which had been extended. "Your company is the only one which I did not hear fire any volleys. What orders did you give upon this point?" The captain admits that the leader of the skirmishing *Zug* had forestalled him by giving the word "Three rounds at 800 meters," which order was immediately conformed to by the other two *Zug* leaders. He, the captain, was all the more unwilling to interfere in the matter, believing the subalterns to have judged the distance correctly, because he thought it a good thing to combine the advantage of a better aim, resulting from independent firing restricted as to amount, with that of mass firing by volleys at word of command which would follow. The brigadier neither blames the rapid exercise of initiative on the part of the *Zug* leader nor the views of the captain, but thinks the following criticism justifiable: "The company was about in the center of the practice ground, which is 1,500 meters square; the battery supposed to be on the poplar hill is thus about 700 meters from the company; if the captain and his subalterns had completely realized the assumed situation, they would have said to themselves that the first shots to be fired should be less for the purpose of hitting the battery which had suddenly appeared than for

* Half a company would be about equivalent to the number of men whose fire would be available from one of the flank faces of a battalion square formed from double column in the German fashion.—Tr.

finding out how far it was off. The first fire should therefore have been directed by the captain in person, and for the same reason volleys should have been fired." And now a question to the commander of the fusilier battalion of regiment A: "Why did you allow the whole of No. 9 to extend? The battalion was intended to cover the deployment of the brigade, but the enemy was still 3,000 meters distant, with cavalry in front. Surely, then it would have been sufficient to post the company in close order, or to place its three *Züge* at intervals under the brow of the hill, with a picket and patrols along the crest. I purposely left this point uncertain yesterday when discussing the proceedings of regiment B, expecting that the commander of regiment A would correct the error if the commander of his fusilier battalion did not make the necessary amendment. Let us now compare the number of companies which actually came into action with that of the companies which might have done so, in order that we may judge of the result:

"*Against the artillery* we have first

No. 9 company of regiment A, and immediately after

No. 11 company of the same regiment, both of which were brought up in quite a regular manner, but did not hit off the range.

"We might have had in addition

No. 10,

No. 7,

No. 8; in short, five instead of two companies.

"*Against the cavalry* we have at once

No. 12 company of regiment A, and the right face of the square formed by the first battalion of A regiment; later on

Nos. 9 and 10 companies, B regiment, the men of which would certainly have been much excited had the occasion been one of actual warfare, and would, moreover, have been exposed to a heavy fire in recrossing the bridge after them,

Nos. 11 and 12 companies, regiment B.

"On the other hand, we might have had at once in action

Nos. 12, 5, and 6 companies, regiment A.

"The right face of the square of first battalion, regiment A; *i. e.*,

Nos. 1 and 2 companies deployed to the right, also

Nos. 9 and 10 companies of B regiment, and a little later on

Nos. 11 and 12 companies of B regiment, all without undue hurry;

"*Finally, also,*

First battalion of B regiment, making a total of seven companies to commence with, ending with thirteen, instead of one and a half to commence with, ending with five and a half.*

"Another observation," adds the brigadier, "will not be superfluous. I have nowhere spoken of general principles for which infallibility is

* Half a company would be about equivalent to the number of men whose fire would be available from the flank faces of a battalion square formed from double colums in the German fashion.—Tr.

claimed, and to which exceptions are not admitted. I have only reasoned upon individual occurrences, with the intention of promoting reflection upon them. When the critic bases his observations upon fixed rules, he only, in my opinion, creates confusion, the consequence of which will be that subordinates will try to discover the views, the wishes, and will of their superiors, and will not learn to act according to the circumstances of the moment, to use their own intelligence, to recognize and appreciate their own responsibility."

With these words the brigadier dismisses the officers, and on this the second day of exercise will still find time enough to comply with the requirements of the second part of section 3, treating of the "general principles" to be kept in view at field exercise, as detailed in the regulations of June 17, 1870. "Field exercise," we there read, "not only serves to prepare the individual soldier and leaders of troops for warlike operations, but also to strengthen discipline by a fixed adherence to recognized forms." The brigadier will thus again practice parade movements, marching past, and formations in column, the last of which are peculiarly adapted to give troops which are brigaded together the idea of interdependence, and also to impress upon them the necessity of working together for a purpose common to all. Hence these evolutions in close order should not be, as they are too frequently, a mere succession of marches to front, to flank, and in oblique directions, combined with changes of front without any apparent motive; but they should be executed with the distinct purpose of changing position from one point to another, chosen beforehand, at no great distance, by the shortest possible route, with varied formations and the necessary changes of direction. Whenever a brigadier sets himself a task of this nature, he finds out that, simple though it may appear, it is for that reason by no means easy of execution, and that it makes considerable demands upon the imagination. As, on account of changes of front and of formation, the shortest way from point to point is by no means the most direct, the director of the maneuver will have to exercise his imagination and come to a rapid conclusion, so as to go as little out of his way as possible, and at the same time to select the most convenient intermediate point for suitable changes of formation and of direction. By having a distinct object in view, which object need not be pointed out, because it will be instinctively recognized by the troops, the weariness resulting from aimless drill will be dispelled. Variations of pace will be at the same time practiced, the troops marching sometimes at attention, sometimes at ease, now and then at the double, a variety which gives animation to the work conducive to discipline, which is, on the contrary, impaired by a sleepy way of doing things.

L. G.

DRILL OR EDUCATION?*

[A lecture delivered at the Military Scientific Society of Vienna on the 3d November, 1883, by Lieutenant Field-Marshal the Archduke John, commanding the Twenty-fifth Infantry Division.]

Translated, by permission, from the German by Capt. W. A. H. HARE, R. E., D. A. Q. M. G.

MOTTO: *Rauheit hat mich oft gereut; Milde niemals; ein gutes Wort, ein freundlicher Blick erzwingt Gehorsam und Liebe.*—RUDOLF VON HAPSBURG.

Drill as a talisman.

Success in war is no game of hazard, but the inevitable triumph of the strong over the weak. Such strength—putting aside religious and political grounds—is the result of better army organization, better armament, better generalship, and, finally, better fighting qualities. The first three of these factors are matters which concern the war department of the state concerned, and mainly depend on questions of finance and the extent to which military service can be exacted from its citizens. Generalship, that is to say, the higher military commands, is left to a few individuals. But the fighting qualities of the private soldier, or, in other words, his military value, is a matter which concerns us most, for it is, to a great extent, the result produced by our care and labor, and the object of our work.

The terrible character of modern warfare, with its shattering effects on the soldier's *morale*, its frightful carnage of human life in such restricted spaces of time and place, and the increased difficulties in the way of personal influence of officer over man, makes the struggle between the natural instinct of self-preservation and the feeling of duty go harder than ever against the latter. But it is exactly in this triumph over the natural instinct of self-preservation that the fighting value of the soldier lies, or, in other words, his use as an instrument in the hand of a higher directing mind.

It is impossible while looking at this question not to call to mind Frederick the Great at the battle of Kolin, who, when irritated at his wavering grenadiers, led them on with the words, "Rackers! wollt Ihr denn ewig leben?" (Rascals! do ye wish, then, to live forever?)

With the slaughter of St. Privat and Plevna fresh in our memory,

* "Drill oder Erziehung?" Vortrag gehalten im militär-wissenschaftlichen Vereine zu Wien am 3. November 1883, von F. M. L. Erzherzog Johann. Wien, 1883. Verlag des militär-wissenschaftlichen Vereines.

there has been an effort in nearly every army to find some means of checking the evil results of such carnage on the soldier's mind, or, in other words, counteracting the instincts which are so naturally brought into play in the human mind by the character of modern fighting. And in this respect it is certainly to be regretted that this has not been made the subject of so much attention as should have been the case, and that the man himself has not been considered as a factor of success in war to the same extent, at any rate, as technical improvements in arms, the minor details of drill, and such like matters of investigation. Had it been so, indeed, our opinions would have been a deal clearer on the subject.

Now, opinions on the way in which *the man is to be fashioned into a soldier* are naturally just about as different as inclination, tastes, thoughts, and individualities.

Where the training of the soldier, just as the carrying on of a war, finds a firm and healthy support on some great feeling inspiring the masses of the nation, on subjects of great national interests affecting all, on the enthusiasm inspired by some great man, on the as yet unimpaired power of religion, or on the passions, be they noble or ignoble, of a people, the task of forming soldiers is an easy one, for it becomes then merely a question of giving effect to such impulses. But it is a very different thing when the training of the soldier can only look for support to a very slight extent on a feeling generally pervading the nation, and when, in other words, some great *general* motive power, such as a *universally* popular war with the people, is out of the question.

It is maintained by some that *discipline alone can make troops reliable in war, and that discipline can only be arrived at by strict drill.* This means to say that the systematic fashioning of the individual man, entirely destroying all initiative of his own, can be carried to such an extent that the very thought of indiscipline is impossible in his mind, and troops can consequently be relied on to carry through what is tactically required of them without any regard to personal danger. In other words, instead, then, of the moral motive power which, resting on the honorable traditions of the imperial army, the Archduke Charles embodied in his high-minded soldier's watchword in the three words, "motive, thought, and mind," and which were embodied to such perfection in Marshal Radetzky's army, we are to have stiffness, formality, the parade step, and Prussian drill!

This is not my opinion.

But, first of all, to remove any false impression that may be made by my allusion to Prussian "drill," let me say that I do not in any way mean by this, Prussian "training." In Prussia soldiers are drilled *and* educated. Scharnhorst said that a strong and natural thinking power was one of the first qualities of the soldier. What I mean by "drill" is—as carried on in Prussia, *hand-in-hand* with training for war—a series

of formalities which, thanks to the intelligence and previous education of the Prussian recruit, is attended by no serious results to his real military training. But the same could only be arrived at by us by sacrificing the real training of the soldier for war, as with the inferiority of our raw material, and the consequent enormous difficulties in our way of forming the soldier at all, training for war demands all our time and care, and would suffer if these were devoted to any other purpose.

In Prussia parade drill may be looked upon as *a luxury*—a luxury which may be tolerated, though not, perhaps, with impunity—but with us it is nothing more nor less than *a sin*. The rich can afford to pay for unnecessary luxuries without perhaps feeling the cost, though they would be richer if they avoided such extravagance. The needy must confine their expenditure to what is strictly necessary, and they only injure themselves by aping the manners of the rich. An educated person can in time master two languages, but with no foundation to build on he must be content with one. Now, if the choice lies, so to speak, between the two languages to be acquired by the soldier, that is to say, training for war and training for the parade, we must decide at once for the former.

By this we only mean to protest against the way in which drill is overdone and carried to an absurdity, and precision imparted to matters where it is quite out of place, with the view of training soldiers for war; in fact, we protest against the unreasonable inclination to imitate, solely and alone, the German army—admired and respected as it is by all of us—in certain unmeaning outward details which must surely cause our friends the Germans a certain amount of amusement if not pity; and not without reason. *Qua nocitura tenes, quamvis sint cara, relinque.*

Let us not forget that our great country, peopled as it is with so many different races, is, not only from a geographical but from a social point of view, really in a state, we may say, half-way between the West and the East. *Our* raw material in men, taking it in all, whatever good fighting qualities it may have, does not permit us to play with that dangerous game, parade precision; that is to say, *it cannot stand it, it loses efficiency by it.*

The same rule cannot apply to all; "reason would become nonsense and virtue a vice." But it is one of the hardest tasks that fall to the lot of statesmen and soldiers in high responsible positions to correctly understand the nature of the human element confided to their care and turn it to the best account. On this nature must depend the system of training and fashioning the soldier, and the character of the means adopted for getting the best value out of his fighting capacity.

In things that we put the highest value on we do not, as a rule, imitate the customs of our neighbors; we should be as we appear, and, what is more, present ourselves as such. Nothing is done by borrowing and aping the manners and customs of others; it merely goes to show that we have little faith in ourselves.

We Austrians have a natural tendency—and it is an inherited weakness in our character—to admire everything that is foreign, especially if it be successful, no matter on what grounds. Who can forget when, after the campaign of 1859, the order of the day was to *imitate the French*, which we did, even to the fashion and cut of our uniforms and such-like minor details. The misinterpreted imitation of our conquerors, with their *élan* and their offensive tactics, brought about the fatal *shock tactics* which cost us so much blood in 1866, and did more than all our strategical blunders to bring about the disastrous results of that campaign. *And now we are copying our Prussian masters, being influenced solely by the results they have achieved, and fancy we see the talisman of success in a caricature of their stiff drill. Would it not be well to see whether the new system, if overdone and trusted to implicitly, without any regard to other factors in the case, might not lead us into the same paths of error as did our old shock tactics copied from the French?*

German successes.

But Prussia, with her military system, was victorious in the campaign of 1870–'71—the most important of the present century—and the French army, which was undrilled and slack, was beaten. This is a fact, say the admirers of drill, and admits of no futher argument.

Stiff drill, tolerated in Prussia without evil results, is in accordance with the traditions of the Prussian army of last century, and is felt to be all the less irksome as the first soldier in the country clings to it with a justifiable kind of religious feeling.

There are, besides, many things to be seen in Prussia which the credulous might easily take for signs of military strength.

But it should not be ignored that in all their training schools and in the education of the soldier the Prussians work on the man's power of thought and power of resolve; that during the sixty years in which the Prussian army was trained for its final triumphs the Waldensee theory was in force, and the tendency of this is to quicken the soldier's judgment and train him in field duties; that this practical system still gives unmistakable signs of being the right one to-day; and that field firing, with its tactical application, and field training in the autumn and winter, are practiced with the same amount of intelligence and success as ever. Military opinions in Prussia openly declare that excessive drill and the worship of forms must sooner or late disappear.

It was not drill or exterior forms that led the Germans from one victory to another; it was the national spirit with which the war was undertaken and carried out; the excellent military law which had become a second nature to the Germans; the iron determination which pervaded every branch of the service; the desire to press forward shown by their marching and fighting exploits; the power of attraction the sound of the cannon had on all generals, high or low, making them set their columns in motion for the scene of strife, with or without orders, and with-

out shunning responsibility. The French soldier did his duty. The graves of the slaughtered Germans are silent but grim proofs of the bravery and devotion of their opponents. The French could not attribute their failures to their soldiers not having mastered the art of marching past with a prancing step or mounting guard with Prussian rigidity and stiffness; it was their bad organization; their neglect to turn the strength of the nation to proper account; the mobilization on the frontier; the want of system in their leading; and the carrying on the war after the fall of the empire by amateurs and *dilettanti*. These were the causes of failure.

Obedience of intellect and strength of mind are, of course, indispensable factors, but these are far more necessary with the *higher* ranks than with the rank and file; it may be said that the necessity for reliable discipline increases as the square of the importance of the command, of the degree of responsibility, and of the danger of disobedience.

When the arrival of a column has been arranged to take place at a certain time and place, but the officer in command has other ideas on the subject, or does not comply with his orders, or finds that the marching powers of the troops in his command have been overestimated, or fancies that the probable action of the enemy will prevent his carrying out his instructions; or when personal ambition is carried so far as to subordinate the welfare of the whole to that of the individual, and gives rise to reckless enterprise, then calculation is out of the question, and failure more than probable. *This* kind of discipline may, to a certain extent, have been faulty on the French side. *And with us it is insufficiently fostered, too little practiced, and breaches of it are not always severely enough dealt with.* Discipline of this kind is, however, not to be confounded with the strict drilling of the rank and file, and is certainly not to be acquired by it.

A strait-jacket never cured a madman yet; the mind cannot be disciplined through the body. The effect cannot be produced by working inwardly from the exterior, but just the other way; we must work outwardly from the interior. The exterior of the trunk of a tree may be perfect and sound, but, in spite of this deceptive covering, the interior may rot away and die, and the first storm may blow the tree down if the interior is unsound. It is inwardly that we want the soldier beautiful; it is inwardly that we must make him smart and soldierlike. It is the true beat of a stout *heart* in a manly breast that we must look for, and not the mechanical beat of the drilled footstep on the parade-ground.

How little strict drill really means discipline may be inferred from the fact that many of our regiments that excel on parade in drill and appearance are by no means the most highly disciplined; whereas other regiments the names of which have been associated for years with the glory and honor of the past—regiments which from time immemorial have enjoyed all those glorious military traditions that make

the heart of the soldier and patriot beat high—have presented anything but a smart appearance on parade. With the Turks, who are the next thing to a mob on a parade, who move any way, without any kind of time or step, with no words of command, with an absolute contempt for dressing and appearances, there is, as a matter of course, the most complete military subordination to the superior. The Prussian drill which was in existence in Napoleon's time no more enabled the French to fight as they did under the leadership of the great Corsican than it did some sixty-four years later on.

The real causes of the German successes in 1870 and 1871 we must look for not in Prussian drill, but in *Prussian sense of duty*, *Prussian determination*, *and Prussian power of endurance;* these are what we must try and copy.

Form and spirit.

The long-standing difference of opinion on the relative importance of form or spirit will always exist as long as there are men; but to those who recognize *both* as necessary this difference of opinion has no meaning.

The perfect man is he in whom the unity of body and soul, or, in other words, form and spirit, is typified. The body without the soul, that is, the form alone, is an inanimate object; the soul without the body is an object of faith, but not one that can be demonstrated by science. Just as great as is the support of a healthy body to the soul, and just as useful as may be the *right* form to the spirit, so inversely can the *wrong* form be injurious when it does not express the spirit, but rather forces itself on the latter to the prejudice of its proper functions. The form may be compared to the coat which gives a certain finished appearance to the man without interfering with the action of his limbs. But if the coat is without cut or fit, it impedes the man, cramps him, or interferes with his freedom of limb. In a word, form and spirit are both important, but the former must be subordinate to the latter; form *without* spirit or *contrary* to spirit is not only useless, it is positively injurious. And yet, notwithstanding this, does not the "one, two" of the drill sergeant mean the drilling of *form—form without a purpose?*

The members of a certain party may sneer, if they like, at us Utopian dreamers, and persuade themselves that strict discipline brought about by strict drill is the only means of training soldiers, quite regardless of all other factors which affect human nature and inspire a sense of duty. But it is only false pride, after all, that makes them say, "What! enthusiasm, patriotism, devotion? Rubbish! what we want is implicit obedience, and this we get by strict drill."

But there is a *twofold error* in this theory, for, in the first place, obedience is not everything, and, secondly, it cannot be arrived at by physical drill alone.

When the forced march, the bivouac without rest, and the difficult forest and mountain path have knocked all the parade smartness out of the heavily-weighted and exhausted soldier; when the whistling bullets are flying thick; when there is no cover from the enemy's fire, or when a death-dealing line has to be stormed, then discipline alone is not enough; the authority of the officer loses its power, for the fear of the enemy's bullets inspires a far greater dread than all his threats. Many an officer who fancied he had got his men entirely in hand by strict drill alone would certainly find out his mistake under such circumstances, and then see the utter collapse of a system which he had implicity believed was infallible.

The courage of selfsacrifice, be it inactive or passive, can only be the result of the higher or noble motives that govern us. "It is no normal condition of our existence," writes a Prussian author. "It is one that can be arrived at either by a fanatical or an ethical spirit; but the former is inhuman, whereas the latter is elevating in character. The former we cannot arouse in a civilized army; it would be the source of endless danger to military discipline; the latter is the end and object of all military systems and tactics." The same author complains "that the soldier is looked upon as part of a machine that works perfectly as a whole, but that unfortunately in this no account is taken of the uncertainties of human nature."

It is of course unaccountable that the officer and instructor should, of *his own free will*, neglect all recourse to the more powerful moral incentives of the man, and trust solely to mechanical obedience induced by the crushing out of all individuality—means which, under certain conditions, are perfectly inadequate to the end. We might just as well, instead of using language to express our thoughts and ideas, use nods and signs; it would, indeed, be just as reasonable. Even the dumb animal is far more easily governed in many ways by the voice than the rein or whip, and we may see this used every day by the plowman with advantage with either horse or ox. But man, "God's own image," cannot be managed by means that appeal to the senses, such as these! No appeal can be made to his *thinking mind* or *feeling heart!* Such theories are simply rubbish.

The discipline that is carried to such an extent as to crush out individuality is no discipline at all, for discipline is the feeling of the subordination of one's own will. *But the will must be there.* In fact, our regulations for the training of the young soldier make a point of furthering the power of will. Not a machine, with no will of its own, which remains motionless unless the motive power in the shape of the commanding officer sets it going—a mere disciplined apparatus which fails when it is a question of spontaneous self-sacrifice or devotion. No! the soldier must be a *human being* and *a man* of strong determination, and rendered thoroughly reliable and self-sacrificing by working on his spirit and feeling.

We know how often and often the well-known case of the company of Prussian Guards at the battle of Rndersdorf is brought forward as an example; we mean the case of the company which, when it got out of order in action, was carefully dressed as if on parade by the officer in command. But how many hundreds or thousands of cases could be brought forward of troops in critical moments having been encouraged to acts of the greatest devotion by a few properly inspired words of their leader, accompanied with his own example.

The races that people our empire, full of high feeling and susceptibility, tractable but proud, and manly but excitable, produce brave and excellent soldiers *if their good qualities are thoroughly turned to account.*

At the time when stiff formality collapsed so completely at Jena, Austria would never have survived an Aspern, nor have offered the conqueror the desperate resistance she did. had not a great man instilled *spirit* and *feeling* into her army, and had not an appeal been made to the *high qualities* of the Austrian people. Nor would the appeals of Maria Theresa, in times of dire distress, have been answered with the cry of "*Moriamur pro rege nostro*" from a people whose will had been entirely crushed out; not a soul would have answered by word or deed had anybody dared to raise the cry.

Overdrilling and its dangers.

As the desire of our supreme military chief, and consequently our highest authority, is that "at all trainings and exercises the practical object in war must alone be considered, and must never be lost sight of by the instructor," all drill having for its object precision and stiffness alone is in direct contradiction to the regulations, and represents exercises which not only have no object in real war, but are even detrimental to effective training for the same.

The regulations also say, "The position of the soldier should be easy and *unrestrained;*" but the advocates of excessive drill get him into an unnatural and almost ridiculous attitude, cramping and straining his body from the crown of his head to the soles of his feet. The word of command "Stand at ease," by which, we take it, the soldier is supposed to get into a *more comfortable position*, the same advocates turn into a strict motion of drill made with a telling slap, and instead of being a position of ease it is merely a strict position of drill. The regulations also require that "all movements of the soldier must be made with free and unrestrained efforts of the body," and that particular attention should be paid to a "*free and elastic step;*" but in spite of this the drill advocates insist upon an artificial step of throwing out the feet and bringing them sharply to the ground, as tiring as it is useless, and quite impossible on anything but an even parade-ground. "The rifle is to be *carefully* handled; sharp raps on it purposely given to make the motions 'tell' are to be avoided." So say the regulations. But we find

instead sharp and quick motions required by smart drill-masters, regardless of injury to the rifle, just as if the care of the latter were quite a secondary consideration. It is not to be wondered, then, that the zeal of these enthusiasts goes so far as beating time with the hand on the pouch to mark the pace, and loosening the bands and screws of the rifle to make the motions of the manual "tell," and other similar absurdities.

The wheelings with faultlessly dressed ranks; the stepping short, with the crawling motion of the feet; the advance in the line of several battalions, to practice the feel and touch of large bodies; the slow extension of lines of skirmishers advancing and retiring in dressed lines, totally regardless of the nature of the ground; the pernicious practice of extending and closing the lines of skirmishers themselves; the cut-and-dried formal formation for attack, which is just what the attempt to carry out elaborate and rigid exercises with lines of skirmishers comes to, and nothing more, and such-like performances, are one and all errors leading to the conversion of the soldier sooner or later into a *machine.*

But is overdone drill and smartness, carried to an excess over and beyond what is necessary, merely a useless, a harmless playing at soldiers? No; it is worse than this; it has *dangerous results.*

That excessive drill destroys the will, and consequently crushes the man morally, is not the worst part of it. Far more serious is the stupidity arising from the intellect and thinking power being systematically ignored, and the man consequently never called upon to think. We should appreciate, value, and turn to account the natural intelligence, sharpness, and powers of observation—if we like, the Indian talents—of the many races that constitute our empire. To allow these to get rusty—and everything rusts when not in use—seems to me to be most unwarrantable.

But the very worst evil that arises from the system is when the man has too strong an understanding to lose his individuality, for he then *shams obedience;* that is to say, he is trained *to deceive.* Nothing favors this sort of thing more than unreasonable demands which are impossible to comply with. As soon as the ground becomes difficult and the men are tired, a natural reaction sets in, the change from the strictest order into disorder is then all the more striking in proportion to the degree in which the former has been enforced, and the authority of the officers is then either unheeded or else these are deceived. Our regulations take a perfectly correct view of this psychological effort, and say that no more should be required "than the nature of the ground *permits*, or than would be possible under the circumstances of real war"; and in the Prussian regulations we find a strict line drawn between what is required for parade purposes and what is required in the field.

But this is not all. The curse of evil is that it must *continually* beget evil.

By crushing out individuality and using a purely mechanical system of drill—putting aside the cruel strain it puts the soldier to, and the immense trouble it gives subordinate instructors—a commanding officer can, *with the least trouble and inconvenience to himself*, attain what appear to be the most astonishing results, and by the apparent machine-like precision with which his men are drilled gives the impression, or rather he fancies that he gives the impression, that his men are perfectly trained. But this requires no power of thought, no military knowledge, no gift of instructing, no appeal to the mind, no personal moral efficiency—in fact, no understanding or personal characteristics. The most incapable man can train troops in this way. But if this strictness acquired by drill be taken as the exclusive test for the efficiency of a regiment, and consequently for that of its commanding officer, then it amounts to a positive danger both for the army and the country.

I have asked myself involuntarily the question: What on earth is it that leads men into such paths of error, and men of sufficient experience to know perfectly well that success in war must depend very much more on other factors? Is it conviction or is it convenience, or is it, in fact, the natural outcome of that desire for power which is more or less active in the breast of man, and which delights in subjecting the will of others—no matter how—to his own? But to try and satisfy our desires, even in this respect, by means of a purely mechanical nature, would lead us almost to suppose that it were impossible to arrive at the same results by means of an intellectual and moral nature. I myself think that not *one alone* but that a considerable portion of *all* the above causes have something to say in it. For the belief of the men we allude to cannot possibly be so blind as to fancy they see the promising words "*in hoc signo vinces*" written over their imaginary perfect human automatons.

But the most remarkable irony of facts in the whole case is that whereas all this strict drill, arrived at with so much trouble and expense, has for its end and object *the complete disciplining* of the man and *his implicit obedience*, those that employ the means referred to are themselves guilty in doing so of the most *flagrant act of disobedience* of the highest military authority. Turn, for example, to page 9 of the introductory part, where it says that strict discipline "*is best enforced by the example of implicit obedience on the part of the superiors.*"

Mechanical drill has, however, found its re-echo in *military literature*, and this way of propagating the poison is an *especially dangerous one*, as under the cloak of science, and as a handy kind of sophistry for the ignorant and lazy, it finds many believers, and perverts or at any rate confuses them. Such authors literally worship the golden calf of strict drill, with a supreme contempt of all appeal to spirit and feeling, amounting to fanaticism.

"Fighting efficiency," says one of these writers, "will be found among those excellent qualities which troops arrive at by the process of smart and strict drill, that is to say, by *drilling in close formation on the parade-ground.* * * * This is the secret of concentrated and reliable order and strength which troops *can* and *must*, above all things, arrive at and possess for the day of battle and the hour of danger, and *nothing else will do in its place.*" A lecture which has been published says: "Strict drill in close formation and the manual exercises are training necessities without which modern armies could not exist. * * * All these considerations point to the necessity for *adding fresh power to formal drill.*" * * * Another and in other respects excellent publication alludes to the drill-ground in the following strain: "Troops must be well, often, and unceasingly drilled in peace time. *The parade-ground, that excellent training school of implicit obedience, that gymnasium of bodily and mental discipline, cannot be used too much.*"

But what are we to expect if young officers are taught doctrines such as these as a preparation for the next campaign, and if they are told at the same time that it is better to pass the winter time with drills of this kind instead of *schools* for the men? Those who hold the parade-ground alone in such high esteem have certainly but a poor opinion of schooling. If contemplations such as these were to get a hold on the army, we might certainly say, "We had neither learned nor forgotten anything."

The theory of strict drill goes, however, beyond this; it lays down the *normal formation for attack* for even large bodies of infantry, the misleading form or pattern—the refuge of the incapable—and pretends to be able to drill brigades and divisions just as the drill corporal does a squad.

Theories such as these must have a positively sickening effect on the sensible officer and thoughtful patriot, in view of the consternation that would arise in critical times; he might well indeed think that *peace had lasted a little too long.*

Requirements based on common sense.

It is, however, a pleasant thing to think that we can rest assured that the drill system, with its bad effects, cannot really get a firm foothold in our army, as common sense and discernment have really shown themselves averse to it. With the exception of some minor details—and let us hope that we shall soon see these vanish too—our training may be said to be generally based on what is really required for war.

As a matter of fact, it would never occur to any reasonable man to underrate the value of the strictest performance of all minor details, accompanied as it must be with a certain *necessary* formality. Nobody, for instance, would ignore the value to be attached, from a disciplinary point of view, to the correct giving and returning of military salutes; but we must not think that this is done to make the soldier "see," but rather

to instill him with respect for his superiors, and feel a certain amount of personal pride in having his salute correctly returned. The most determined opponents of drill will certainly admit that the strict closing up and keeping distance in columns must be practiced and insisted on. Even those who have the greatest horror of formalities must again agree that smart drill in close formation must be practiced not only on the parade-ground but in the field—if not as a means of instilling discipline at any rate as practice for moving troops in compact bodies as a preliminary to engaging the enemy. Everybody must, however, admit that the greatest stress must be laid on such points as self-reliance and precision on the part of officers; their emancipation from the mechanically commanded battalion; on rapid change to the order of attack, and *vice versa;* on skill with the rifle till it is loaded and fired with mechanical precision; on the strictest fire discipline; on correct and well-delivered volleys; and on steady and well-controlled file firing. But if the cut-and-dried form is to be preferred to dispositions made to suit time and place, which certainly no man in his senses could dream of, the dressing and grouping of skirmishers would be first thought of, and only afterwards the configuration of the ground. But we cannot hope to get steadiness, attention, and what is generally termed "troops well in hand" by drilling in close formation only; we must use and practice the formation for attack and defense where there is less immediate supervision of the superiors, where the chains of responsibility are long and consequently weak, and where it is consequently desirable to appeal to the spirit and intelligence of the individual and subordinate commanders. For what do we really get in the end in the way of discipline brought about by everlasting drill? Surely the man who intentionally goes to the "left about" when ordered to the "right about" is simply a lunatic.

Besides, it can be practically shown that a regiment, without being overdrilled, can with rational education and training be quite smart and steady enough for all tactical purposes, and quite enough so even to please the eye. A regiment must *look well*, and there is no reason in the world why it should not and be efficient at the same time; in point of fact, being efficient ought to make it look well. But ugly absurdities should not be mistaken for good looks; stiffness and clumsiness should not be preferred to suppleness and activity; it is much better to have a few simple, easy forms, useful and applicable at all times and places, than a variety of complicated ones, of use only under certain conditions.

It is a peculiar feature in our profession to be strictly exacting, and to set to work, regardless of consequences, without misapplied philanthropy or misplaced indulgence, in spite of all our natural feelings of kindliness and mercy for others.

But all this, like every other sensible system of training the soldier,

has an *object;* it makes the man think. It is not, in fact, only the *imperative* of discipline; it is the *postulate* of reason as well.

But I deny most emphatically that I wish in any way to interfere with the most implicit obedience; on the contrary, I wish to strengthen it, but on ethical principles. Some may say to this that the superior cannot be "requested" to give with every order the "reason why"; this needs of no argument. But do not let us lose sight of the fact that if the inferior has by training and experience once grasped the feeling that all orders arise from necessity, this idea will not forsake him either in peace or war, and will exact implicit obedience from him in all matters, no matter whether he knows or understands the reasons or grounds.

Next comes the question, Should we to a certain extent *practice* in one way and *execute* in another?

Now, the disciples of strict drill maintain that discipline is best attained by the drilling of certain forms, which, however, have nothing to say to such as would be used for training troops for war; "*for the very fact of these forms having no practical object kills the last vestige of refractoriness by suppressing all private conviction in the matter.*" In other words, this means that the soldier must be made pliable by destroying his power of thought, as if in making any reasonable demands we ought to be afraid of the reasoning powers of the individual on whom they are made! The tendency of all this drill is then clearly and designedly to paralyze the *power of reasoning.*

Such an unconcealed, I may say barefaced, avowal of the object of drill as is given in the work "The Method of Disciplining Troops" is *positively nothing more than a disgrace to the nineteenth century.*

Of course all skill, all dexterity, all accomplishments, are arrived at by *preliminary practice.* We learn to write by first making strokes or portions of the letters; but we do not polish up our hands to discipline them for writing. We learn to shoot by practicing, presenting, aiming, and pulling the trigger; but the rifleman would profit little if, as a preliminary to shooting, he was first taught skating or some other totally different accomplishment. In fact, the preliminary training must form part of what we expect to see *performed*, or what constitutes the subject of the training, and not something totally *different.* Ordinary common sense must look upon the time spent in such absurdities as lost, and it is so as a fact.

Looked upon by the light of day the whole thing is a delusion, a kind of nervous excitement produced by the "one, two" of a well-drilled company—a nervous excitement by which men of a *sensitive nature* are impressed with ideas of order, flexibility, discipline, and high fighting qualities. *But unless we look upon it in the light of a medium* it can only give the impression of a poor attempt at playing at soldiers.

Listen to the opinion of a Prussian author, one whom we have already quoted: "The bravest soldier," he says, "is the man who has never

been under fire. The *habit of drill* can be so strong in him that he moves *for a certain time* on the field of battle as if he were at maneuvers; *but only for a certain time*, that is to say, so long as he does not know the danger he is exposed to. * * * These are critical moments. A few officers have *the strength of mind* to be equal to it, and have the power of reviving the expiring courage of their men and carrying them with them."

In other words, this means *the charm or spell by which drill is supposed to hold men fast vanishes in time of danger, and only moral power is then equal to the occasion.*

Moral power.

We have paid much attention to the *knowledge* and *power* of the soldier, almost exclusively so, as if the *wish* hung back of itself. But the wish is the chief thing, and care should be taken that the *negative* wish should not only be suppressed but the *positive* wish strengthened. It is only thus that the "*most daring*" determination which our regulations describe as "the best" *can really be arrived at.* The same regulations do not without reason describe the first principles of training the recruit as "*based on moral education.*"

And even granting that we have no such strong impulse to awaken the fighting powers of our army as, for instance, there is in the Turkish fanatical faith, the Russian gravitation towards Constantinople, or the French national burning for revenge, we should all the more, on this score, by *fostering the love for the dynasty, strengthening the bonds between officer and soldier, raising and strengthening the tone and feeling, and awakening a spirit of duty and self-sacrifice*, find some other means of really training our army to be a thoroughly devoted and reliable one.

A distinguished general once said to me that when he was commanding a Hungarian regiment in the Italian campaign he was asked whether he could rely on his men, and he felt he could answer that they would certainly do their duty for the sake of their colonel. And this proved to be true. The affection of men for their commanding officer can do great things, but it must be more than mere sympathy; it must be an affection amounting to a devotion of the most completely confiding and self-sacrificing nature. To be able to gain an affection *of this kind*, however, is not the gift of all, for a good disposition and study is not sufficient; *popularity hunting will never do it.* We must have a fellow-feeling for our subordinates, and then only can we gain their hearts. But *to display* this fellow-feeling only will do no good. You will never win the hearts of men unless your heart is really with them. Unfeeling men are to be avoided, just as those hypocrites who are cunning enough to feign a fellow-feeling. They are left in the lurch the moment the game they are playing is laid bare, and they are then the more hateful, as we feel they have deceived us. Ordinary individuals have

far greater instinctive powers of discernment in these matters than most people give them credit for.

It might be urged by those who object to these principles that it would never do if a regiment would only follow Colonel A and not Colonel B. And it would certainly never do; but the *other* kinds of moral motive power which I have alluded to insure troops doing their duty under any leader. If, however, our aims are higher than this, nothing but personal influence can attain them. Rustow is perfectly right in saying, "The influence of a commanding officer does not arise from chance or accident. He who can get more from his men than can his opponent from his is always at an advantage."

An Austrian author, describing the habit of discipline in the observation of certain forms as the only means at our disposal, says, literally, "It is a myth that in the rapid conversion of our human material so-called beloved leaders arise, round whom men rally with devotion in the hour of battle." Now, to those who know troops by personal contact, and have a fellow-feeling for them, there is, thank goodness, *no myth* about it whatever. *Affection* is a thing *quickly* acquired, but *habit* is a matter of *time*. If the rapid conversion of our human material is dangerous to one of these, then I should say that habit is most likely to suffer in this respect. The filling up of the ranks with the reserves, the marches for concentration, and the first, though perhaps ever so small, engagement, are enough to make a commander liked or disliked by his men. Ay, it only requires a moment or so in the hour of danger for a really first-rate man to gain the affection of his inferiors.

One of the most important conditions, and at the same time a useful lever for morally improving the soldier, is *the relation that exists between officer and man.*

This relation is in certain armies based on tradition. Based on conditions that have still something patriarchal about them, and the social standing of the subaltern officers, it is in Russia far more direct and intimate than in other countries, and is, perhaps, too familiar. The Prussian officer, as we all know, having a social standing of the first rank in the country, moves in the best society in consequence, and being represented with his men by excellent non-commissioned officers, is brought far less in contact with them; in fact, his relations with them are almost of a purely duty nature. With us the relation varies very much in the different branches of the service, according as the officer lives more or less in close contact with the men.

But on the whole we might observe that, having due regard to the peculiarities of the majority of nationalities in our army, *the relation might with advantage be a closer one in the infantry.*

The soldier should, in fact, be looked on as a man, and, what is more, be made to feel as a man. The officer need not to be always on duty from his point of view. Without causing any undue familiarity, he can, by daily intercourse with his men, get opportunities, while fully main-

taining his position, of showing himself in the light of a sympathizing fellow-creature instead of the mere superior, in caring for their interests and doing all in his power for their material welfare.

If the bonds between officer and man be closely drawn, the former ought never to find it difficult to arouse, without the use of empty phrases, in a way that suits the individual character of the man, such qualities as love for king and country, pride in himself as a soldier, ambition, *amour propre*, a soldier-like feeling of obedience from self-conviction, and a feeling of *camaraderie* and attachment to his regiment. No stone should be left unturned to raise the tone and feeling of the soldier. We can well afford in this to be a little indulgent in insignificant matters; we must not think it serious if regimental feeling goes so far as to make the soldier look down upon other regiments; give the soldier if possible recreation at the right time; put up with his light-heartedness, and even turn it to account; *and, above all things, take care not to get into the habit of continually finding fault;* rather bestow praise, even if it is only half due. Approbation is better than blame; it is the indispensable forerunner of *amour propre*, attachment, and cheerful labor. Constant finding fault produces, by the blunting effect it has on the feeling, the most difficult evil to get rid of—apathy.

The officer should have all those moral qualities we look for in the soldier in a higher degree. We have to produce *military characters*, independent, cheerfully energetic, and thoroughly conscientious men. Though many may look on *converting soldiers into machines* as a preparation for our next war, the intelligent man will look for it more by fostering their *individuality* and *initiative*. For the shorter the time the fight lasts, the greater is the necessity for seizing opportunities without waiting for orders. The more murderous the fire, the more questionable is the possibility of giving orders, and the more frequent the loss in commanding officers, whose regiments, however, cannot stop in critical moments to have the command taken over. The greater the friction, the more is it desirable to have, instead of a machine-like army, a living organism, the parts of which can act independently in the spirit of the general desire.

It would appear, therefore, all the more desirable that the higher leader should, instead of making his subordinate officers go in leading-strings, direct them intellectually, and so fashion their ideas that he may confine himself to ordering what is only *absolutely necessary*, and leave the remainder to the initiative of his subordinates, feeling sure that though they may not act strictly in accordance with his *orders*, they are certain to act in accordance with his *intentions*. This, again, requires the relations between senior and junior officers to be of the closest kind; to communicate our own ideas and convey our own ways of thinking to others is only possible with close personal contact. There are some colonels and generals who keep almost quite aloof from their officers; very often this arises from an unfounded fear on their part that close

contact with juniors is likely to affect their dignity. But the man who is firm in the saddle as a member of the military hierarchy feels no necessity for surrounding his person with obstacles to approach, which after all afford a very poor protection to the authority belonging to the *rank* only and not to the *person*, against the skepticism of juniors. A colonel or a general should have the courage to be a friend and comrade *off duty*.

But when the increased demand for independent and self-relying officers has been alluded to, it has been sometimes met with the question whether independence did not *already exist*, and only required to be *tolerated*. No! unfortunately it must be *cultivated*, for there are too many of our juniors whose minds are dull and without desire, who are only too glad to be relieved of all responsibility by the guardian of inactivity; and the lethargy which is the consequence lasts long after the original cause has been removed. Let every one be given the full, free scope allowed by the spirit of the regulations, and let us trust to the responsible spontaneous action of our juniors. We must satisfy ourselves beforehand, however, by the *strictest* tests, that what is required is likely to be forthcoming, and distinguish between the criminal presumption of the impostor and the proved and consequently esteemed conscientiousness of the reliable man.

Everything that the junior does *cannot always be improved on*. Many an error in execution or even in resolution may be overlooked in order that power of resolve and self-reliance may not be interfered with. We should never let ourselves be influenced by temper or passion, and never color the meaning of others. The eye-servant who tries to curry favor should never be encouraged, nor should the honest man, who, rather than try to ingratiate himself, makes himself perhaps disagreeable, be snubbed. *This is the way to produce military characters;* otherwise we shall only produce *slaves*, who in the choice of "to be" or "not to be" purchase the "to be" with the surrender of their individuality, at first, perhaps, against the grain, but gradually with their moral emasculation appeased.

The officer must be *naturally inspired by an ideal conception of his profession*. He will thus be proof against the attacks of materialism, and encouraged to face the trying duties of his calling.

Let the officer remember that if he can oppose a living dam to the flood of the disorganizing tendencies of our days, these will break helplessly on the soundness of his strength of character. Let him acquire a pride in himself from the thought of the meritorious work he has done in yearly instilling into the minds of the 100,000 men or so that annually join the colors, a higher moral tone, a love of justice and order, and feeling and character—in fact, the blessings of civilization, which they take with them to their distant homes, to there produce further benefits. The officer thus fulfills in peace a mission just as noble in itself as is his bloody work in war. Let our officers be firmly convinced that in days

when opposite disuniting efforts are tending to undermine the monarchy it is the officers' duty to strengthen to their utmost the bonds that unite it, by instilling into the minds of the thousands that come from all parts of our wide empire a feeling of unity in the whole fatherland, and the desire to raise the national colors high above the petty strife of faction and party, remembering the noble words of the poet, "Austria is in the camp."

Let the officer fully understand his position; let him raise himself above the ordinary level of moral courage, so as to be, in the closest sense of the term, the *soul* of his men, and lead them to victory. But the soldier, if the call or even the example of the officer is to have any effect, must be susceptible and attached to him.

"Rubbish," I hear again the opponents of these ideas exclaim, with a cold, scornful sneer. Well, may they never be taught by disaster that troops that are drilled only and not educated will fail them in the hour of trial; may they never have to feel in the bitter hour of defeat what a difference there is between possessing and not possessing the affection—this supposed myth—of their men.

And now enough!

In view of the possibility of the monarchy having, at some not very distant date, to engage in a serious conflict, the traditional patriotism of the Austrian army must and can imperatively call upon every man belonging to it, no matter what his station be, to take the most complete *loyal faith* as his sole guide, and follow the line which most surely leads to success.

There can be only *one right* way, for there is only one kind of truth. But it is difficult sometimes to find and recognize it; hence different views, different faiths.

Supported as I am in my belief when I think of the many high-minded and great men whose wise and reforming doctrines have led me to my present conviction, and when I call to mind how often many excellent troops of our army, though undrilled, have shown the highest discipline in the dark days of misfortune, and by their spirit and moral strength have given the most unmistakable proofs of the greatest devotion, I will preserve unimpaired *a belief in men, a belief in my ideal, and a belief in the way in which it is attained.*

The meaning of this belief is contained in the answer to the title of his lecture, "*Let us not merely drill, let us educate.*"

THE INSTRUCTION OF SOLDIERS.

[Translated from the Militär-Wochenblatt, by Maj. E. GUNTER, garrison instructor, S. E. D.]

[Although there are in this translation some valuable hints on the instruction of the soldier, the main object of its insertion is to show the vast influence which can be exercised by the officers of an army in a nation where liability to military service is universal, and where the Government is monarchical.—L. A. H.]

There appeared in Nos. 37, 47, and 56 of this publication, in the year 1884, certain essays on this subject, which, besides being interesting in themselves, especially merit our attention, as indicating clearly the very divergent views that prevail on the subject of theoretical instruction.

The views of the author of the essay in No. 37, viz, that it is desirable to have an official instruction book, drawn up as concisely as possible, is amply refuted in the subsequent essays; but General Prince Kraft zu Hohenlohe-Ingelfingen expresses the same wish in his "Letters about Infantry," and at the first glance it appears, in fact, as if such a wish were justified. Meanwhile the authorities will, it is presumed, never fetter the spirit of officers by systematizing and regulating the theoretical instruction of the soldier, and every wish to this effect will, it is to be hoped, remain ungratified.

Decades ago such desires found expression, and have often recurred, but as yet without result.

The existing instruction books are fully sufficient, and a new issue, which should contain only that which it is obligatory for a soldier to know, ought to meet with little approval in the service.

On the other hand, it would be a false conception to substitute a more comprehensive book, which, while making good all the defects of the text-books hitherto in use, included and combined all their advantages. And for this reason, that the power of comprehension and capacity of the soldier is always very different according to his home and early school training. Is the sharp-witted, loquacious Berlin man only to learn just as much as one who cannot speak German at all; the soldier of excellent school education no more than he who has never crossed its threshold; the man of active mind only as much as the man of dull and slothful brain?

I am of opinion that but little depends on the *book* of instruction. That work which is most suitable for the particular branch of the service is best. Beyond this it is almost a matter of indifference which book is chosen. All books are, however, written more for the officer, whose

business it is, with their aid, to teach as much as he possibly can to the soldier in whose hands he places them.

One thing—and in my opinion the most important of all—I miss in the three essays, viz, that to attain success it must never be forgotten that it is "the spirit which giveth life." It is the soul which enlightens the whole teaching. Above all, it is necessary that the officer be a good *instructor*.

In regard to this I should here like to make a few special remarks.

An entire mastery of the subject, constant practice, and a quick practical understanding do not suffice to make a good instructor.

Fortunately the gift of rhetoric is not necessary for this, but under all circumstances the officer must possess a certain *military* eloquence in order to make himself entirely the master of his pupils. In a few powerful words he must be able to indicate the main points of his meaning.

Then he must be able, in order to kindle enthusiasm in his hearers, *to feel it himself;* he must have a high ideal of his high calling. Only thus can he, in teaching, gain the hearts and engross the attention of his hearers.

According to the essay in No. 56, the teacher must especially take into consideration the soldier's capacity for thought. I am of this opinion, but think rather that, in teaching, the *feelings* of the men must be at least equally considered. In the first place, therefore, the officer must win the implicit confidence of his men. These must see and feel that their officers have a warm *sympathy for* them; that they are not only concerned about their own welfare but are also anxious for the well-being of those under them; that they do not always blame even faults and blunders, but, wherever it is practicable, approach them with words of guidance and instruction, and only punish where the laws of good conduct, of right, and military discipline have been *willfully* infringed.

In teaching, the officer should speak simply and fluently. He must place himself on a level with his soldiers in order to make himself understood by them; but then, again, he must raise them as far as possible to his own level, giving due consideration to the difference of their intellectual powers and characters.

There are two other points I would urge:

First. The officer often has opportunities, in imparting instruction, of working on the sense of religion of his men. He is their teacher, their instructor, and therefore it is his duty to influence them beneficially in this respect also. This is by no means difficult for the officer provided he does not pose as a saint, but chiefly gives proof by his own personal bearing that he is deeply penetrated with the teaching and spirit of the Christian religion.

If he calls on his men in a quiet, moderate way to hold fast to the fear of God and to an honest, right-minded life, if he appeals to the sense of right latent in the heart of even the most reprobate of men, it will be

easier for him to produce good soldiers than if he attempted to do it in any other way. I have often seen in my experience that when an officer has spoken in inspired tones about the sanctity of the oath, the colors, the call of duty, &c., the men are more deeply moved than when, later on, in church, a preacher has touched on the same themes.

The men willingly allow themselves to be influenced by their officer if he only once begins in a right manner, because they are in daily intercourse with him. For this reason the calling of the officer and teacher is no unthankful one. Let the officer but first bring up the soldier as a good *man*, and then he will of himself become a good and efficient *soldier*.

After 1866 it was often asserted that the Prussian schoolmaster had won the battles! I am deeply impressed by the truth of the expression, if by "schoolmaster" is meant the instructor in uniform, the officer who through long years of painstaking, laborious instruction had taken care, at every opportunity that afforded practical instruction, to inculcate at the same time a deep sense of duty and a high feeling of honor. Rooted in these two qualities, all military virtues spring up of themselves.

Secondly. We live in anxious times. The crassest egotism, pursuit of pleasure, shirking of work, predominate. The powers of evil and of darkness burrow hidden under ground, and gnaw at the roots and the marrow of the state. It is, therefore, surely the duty of every right-minded man not to look on idly, but to step forward boldly, with raised visor, and grapple with the difficulties in that position in which Providence has placed him, mindful of the exhortation of our most ideal poet:

* "However small thy world may be,
Do thou but lead it right;
Thy work for *good* let all men see,
Although that work be slight."

The officer shall not and must not enter into politics. * * *

Division of property and universal equality! That is, and has been as long as the world has existed, the object of anarchical efforts.

Now, the dullest recruit comprehends that even as a company cannot stand and can effect nothing without a vigorous, well-ordered regiment, so without a similar state government a nation must perish. Moreover, every one must understand that the ideas of the so-called benefactors of the people are mad folly if he only pictures to himself the land of his village parceled out in equal proportions to all the inhabitants, and if it be considered that one is strong and healthy, another weakly; one must support parents and relations, the other not; one has many stalwart sons who help him in husbandry, another is childless or with only weakly children who require constant care; one is industrious and economical, the other idle, wasteful, drunken, &c. How long would

* I must apologize for paraphrasing this little bit from Schiller, but I think I have rendered the writer's meaning plainer than I could by giving the bare translation of the words.—Tr.

the much-prized equality and equal division of property remain; and when would it require to be redistributed? In my view such and similar observations should equally form part of the instruction given.

Not only during the instruction in the already-mentioned themes—profession of the soldier, the oath, the colors, the call of duty—but the instruction on "duties in general," "use of weapons," "the duties of reserves," &c., will afford fit opportunity for similar observations.

The sense of the people, and especially that of the simple, straightforward man, is sound. It is only necessary for every one in authority whose calling it is to *influence* the broad masses in a proper manner. I consider no one is more called on to do this than the officer through whose hands pass in the course of years so many thousands of Germany's best sons.

The officer has unlimited influence. He can especially form and mold the minds of the recruits, and the good seed sown by the young officer, who, inspired with glowing zeal, is an enthusiast in his high calling, will bear fruit in yet wider circles, and for a lifetime.

If each officer will work in this spirit, then the state need never be endangered, for then the army, the reserves, the militia—I think even the *Landsturm*—will be and continue a bright, sharp weapon in the hands of the commander.

Loyalty to the throne, faithfulness to the state, and warlike spirit are deeply imprinted in the hearts of every German. In no other country in the world would the officer find a more fruitful soil for culture than with us. The spirit, the understanding, necessary to the reception of these lessons are transmitted by inheritance from father to son. In every laborer's cottage the portrait of the "Old Fritz," as well as the members of the royal family and of the most celebrated generals, are to be seen. This spirit must, however, be again and again carefully nourished and cherished if it is not, in time, to be extinguished in the hard-fought struggle for existence.

The story of the exalted house of Hohenzollern, to whom God himself has imparted a special mission, the history of the ruling house, stands at the head of all military instruction as the history of our fatherland. Above all things, let the young officer inspire his soldiers with the motto "For king and fatherland." Let him describe to them the features of Prussia and of Germany, the mighty power of our people in arms, and the great respect which, after hard fighting, it has won for us abroad. Let him detail to them the imposing strength of the army and of the navy, let him sketch their well-ordered organization.

Let him show them how our nation becomes more and more powerful under an energetic Government, and at the same time time happier and more prosperous; but let him also lay stress on the fact that this proud edifice must totter and fall to pieces without the fear of God, without loyalty to the throne and patriotism.

○

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 01198 2691